HOUSTON PUBLIC LIBRARY
HOUSTON, TEXAS
TS26 S8

February, 1953

SOAP and Sanitary Chemicals

In this issue...

Low cost, efficient non-ionics rated "all-surface" cleansers

Glycerine--search for new uses goes on as shortage continues

Allethrin supply to increase as new U. S. I. plant comes in

Sanitary supplier builds on service, quality,—not price

Cover photo . . . New "Instant Fels Naptha" of Fels & Co., Philadelphia now being introduced in a few markets. The new Fels product is a golden granular soap. Carton is red, with yellow sunburst over which word "Instant" appears in green. "Fels Naptha" is white reverse on traditional green fishtail background. New product will retail for about 27 cents.

1-53

For Top Quality at No Extra Cost

SOLVAY LIQUID CAUSTIC POTASH

Solvay Liquid Caustic Potash gives you exceptional purity and low turbidity for specialty soap making—yet it costs no more! Solvay also offers you a special Technical Service that is unusually well equipped to help you with the applications and uses of Caustic Potash. And of course, you can always depend on Solvay for on-time delivery! So, for top quality at no extra cost—order Solvay Liquid Caustic Potash.

LOW IN IRON

and other impurities

Solvay® Caustic Potash is available in the following forms:

- 49-50% Liquid in Tank Cars
- 45% Liquid in Drums
- 90-92% Solid and Flake

SOLVAY PROCESS DIVISION

ALLIED CHEMICAL & DYE CORPORATION

61 Broadway, New York 6, N. Y.

BRANCH SALES OFFICES:

Boston • Charlotte • Chicago • Cincinnati • Cleveland
Detroit • Houston • New Orleans • New York • Philadelphia
Pittsburgh • St. Louis • Syracuse

® REG. U. S. PAT. OFF.

SOLVAY

FOURTEEN MORE JOBBERS JOIN★

★ You, too, can join this select group of 159 ASSOCIATED *Just* DISTRIBUTORS

There are a limited number of sales territories open. Better write for details today.

ASSOCIATED JUST DISTRIBUTORS
c/o Fuld Brothers, Inc.
702 S. Wolfe Street
Baltimore 31, Maryland

JUST is the outstanding combined Cleaner-Disinfectant-Deodorizer-Sanitizer that for well over three years has set phenomenal sales records.

FULD BROTHERS, INCORPORATED
MANUFACTURING CHEMISTS
Warehouses in Principal Cities
CONSISTENT QUALITY FOR OVER A QUARTER CENTURY
702-710 S. WOLFE ST., BALTIMORE 31, MD.
West Coast Plant: Los Angeles, Calif.

CAND-DOX**

Candy's Wax with LUDOX* added

Candy's NEW NAME for the new floor treatment for

Increased Anti-Slip

Greater Durability

Lower Floor Maintenance Cost

GRADES

CAND-DOX #CS
Originally offered as CANDY'S SUPREME Special WR-AS in July 1950

CAND-DOX #BB
Originally offered as BRIGHT BEAUTY Special WR-AS in June 1951

CAND-DOX #CS and BB are made in any total percentage of solids 8% to 18% and in 24% concentrate.

CAND-DOX #CS is slighty more durable and higher priced than CAND-DOX #BB in like percentage of total solids.

CAND-DOX floor treatments represent the finest products available where a higher than minimum recognized standard of anti-slip quality is desired. The resultant films from the use of these products are *HARD*, non-tacky, and will withstand wear, dirt and discoloring traffic marks.

DURABILITY and ANTI-SLIP . . . CAND-DOX products include a compensating factor—LUDOX*—in itself harder than wax. The addition of LUDOX* to the proper wax bases, perfected purposely to accomodate this additive, causes a greater coefficient of friction and therefore greater safety underfoot.

WATER RESISTANCE and REMOVABILITY in proper balance are very important in every maintenance program. In the development of the wax emulsion bases that go into CAND-DOX floor treatments, the important all-around high qualities of our (Standard) CANDY'S SUPREME, BRIGHT BEAUTY and other well known and accepted waxes were taken into consideration and accomplished in the final CAND-DOX products containing the new bases plus additive.

BEAUTY of floors maintained with CAND-DOX floor treatments, which are both hard and very anti-slip, is no less than remarkable and equal to the lustre for which our products have long been famed. The same buffing can be applied, if desired, and the same gloss will result.

Our policy in regard to use of new additives to our floor waxes has always been clear-cut . . . if a definite improvement can be accomplished we endeavor to formulate and combine new ingredients in such a way as to *conform to our very high standards of product function*. These standards in no case are ever sacrificed to climb on any "bandwagon" of *sales* appeal.

The laboratory work in ours or any organization is very important and the starting point for research and development of new useful products. However, FIELD TESTING is the real proof of the real value of any floor treatment. CAND-DOX floor treatments have been thoroughly field tested and are now being sold in quantity by many of our distributors, with success—again proving merit in FIELD USE.

** CAND-DOX contains CANDY'S wax emulsion with LUDOX* Colloidal silica added in such proportion as to *fully* deliver the usefulness of this additive to floor wax. *Trademark of E. I. du Pont de Nemours & Co., (Inc.) Reg. U. S. Pat. Off.

CAND-DOX is available for private brand resale and is sold only through distributors except for experimental accounts in Chicago essential to research.

Why not write us today for *free* samples and prices so that you can make your own FIELD TESTS?

The most complete line of water emulsion waxes of the highest quality available anywhere

CANDY'S SUPREME (Standard)
CANDY'S DELUXE
BRIGHT BEAUTY (Standard)
CANDY'S #640
CANDY'S SUPREME Special WR
#CS CAND-DOX
#BB CAND-DOX

All the above CANDY products are listed by Underwriters' Laboratories as "anti-slip floor treatment materials."

Wax Specialists for over 60 years

Candy & Company, Inc.

2515 W. 35th ST., CHICAGO

SOAP and Sanitary Chemicals

Volume XXIX, No. 2 February, 1953

CONTENTS

In Brief—As the Editor Sees It 39

As the Reader Sees It 41

Soap Assn. Meets, Reelects Wrisley 42

Non-Ionics—the All-Surface Cleaners 46
By Manuel N. Fineman

Glycerine Today 50
By E. Scott Pattison

New Products Pictures 54

Production of Sulfonates 91

Paint Removers 133
By Milton A. Lesser

American Montan Wax 137

From Tires to Sanitary Supplies 138
By Phil Lance

More Allethrin from New U.S.I. Plant 148

Bids and Awards 79

New Trade Marks 81

Production Clinic 99

Products and Processes 103

New Patents 105

Soap Plant Observer 107

Sanitary Products Section 111

Classified Advertising 177

Advertisers' Index 183

Editor
FRANK J. REILLY

Business Manager
THOMAS MORGAN

Publisher
MAC NAIR-DORLAND COMPANY

IRA P. MAC NAIR
President

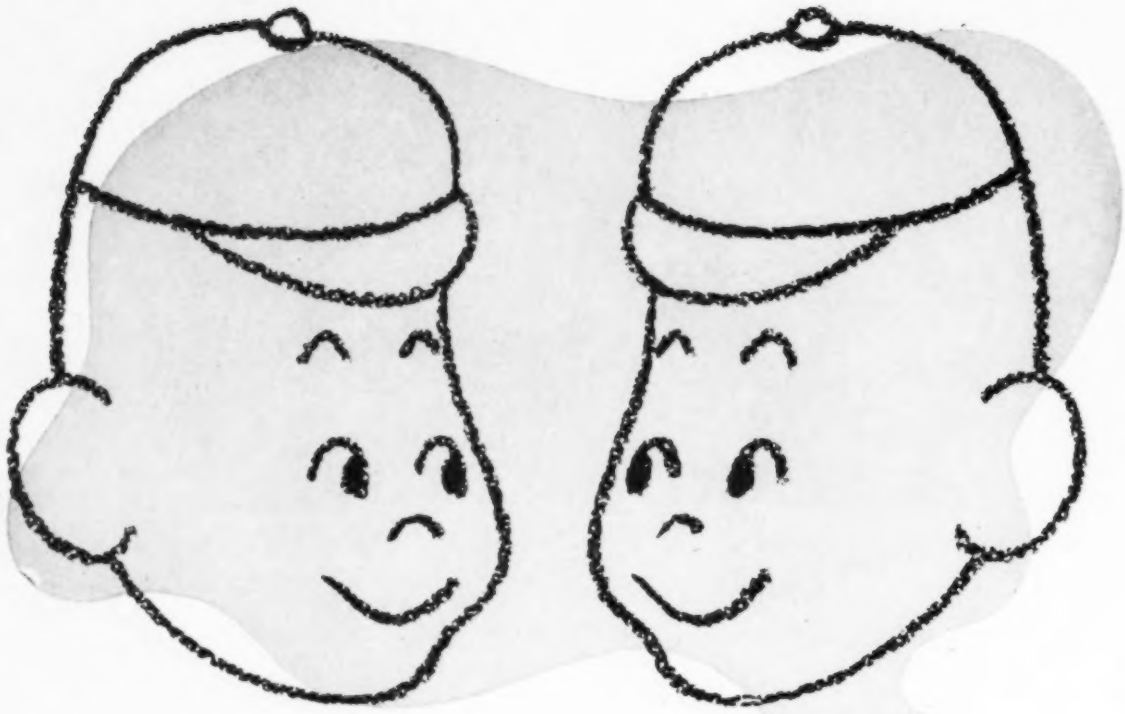
GRANT A. DORLAND
Vice President and Treasurer

Publication Office:
254 W. 31 St., New York 1, N. Y.

Chicago Office:
333 N. Michigan Ave.

ABC AUDITED PAID CIRCULATION

Subscription rates: U. S., $4.00 per year; Canadian, $5.00; Foreign, $6.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter June 16, 1949, at the Post Office, New York, N. Y., under the act of March 3, 1879.



Why are Jimmy and Timmy like **DREYER SYNTHETIC SCENTS?**

The kids are twins. You can't tell them apart.

It's not too easy, even for perfume experts, to tell Dreyer Synthetic Scents from the original odors.

The natural products are stable—Dreyer Floral Creations and Bouquets are very stable and easy to work with. They have lasting body and substance. Dreyer chemists have made them more uniform than Nature's scents usually are.

Dreyer prices will stay stable, too! Dreyer Floral Creations and Bouquets cost you less to *buy*—and keep on costing you less to *use*. For more profitable perfume products, start depending on Dreyer Synthetics. See what you'll save. Send for samples today.

P. R. DREYER Inc.

119 WEST 19th STREET, NEW YORK 11, N. Y

for Essential Oils,
Aromatic Chemicals, Perfume Compounds

Please send your catalogue of Dreyer Synthetic Scents. I'm especially interested in samples of .....

.....

YOUR NAME..... YOUR COMPANY.....

STREET ..... CITY..... ZONE..... STATE.....

no soap will clean like

Hysolene

for asphalt tile

EQUALLY AS GOOD FOR ALL OTHER TYPES OF FLOORS

no soap known can compare to Hysolene!

FOR FLOOR MAINTENANCE—Conditions and preserves ALL type floors—waxed or not. Seals the pores. Brings out natural color and life. Prepares for WAXING in ⅓ the time!

FOR CLEANING POWER—Removes ALL the dirt in ONE SPEED-EASY MOP-UP! Strips off stubborn smudge and stain. Erases downtrodden, imbedded grime!

FOR SAFETY—Foot safety AND floor safety! No soap residue left behind to re-emulsify under wet traffic and introduce slip hazard! No chemicals or abrasives that mar fine floor surfaces.

FOR LUSTRE—Hysolene's satiny lustrous finish acclaimed by all who don't use wax but insist on bright attractive floors ALL THE TIME.

SEND FOR TEST SAMPLE!

You'll never use anything else to clean and condition your floors.

Hysan
PRODUCTS CO.
932 W. 38th Place
Chicago 9

SOAP DULLS FLOORS—*HYSOLENE* BRIGHTENS THEM!

KNOLAR

EMPIRE FLAKE and GRANULATED SOAP

Tops in soap quality. Made from finest tallow and coconut oil. Chalk-cliff white, tissue thin, neutral and free from additives, oxidants, etc. Flakes contain 92% pure soap; granular 94%. Recommended for washing linens, silks, and other fine fabrics. No finer soap quality than EMPIRE!

VIKING FLAKE and GRANULATED SOAP

A 100% all-tallow high-titre (42 C) soap for heavy duty laundering. Flakes contain 90% soap; granular 92%. Heavy bodied suds for high temperature operations. Excellent detergency. Always uniform in quality, neutrality and color.

KEYSTONE FLAKE and GRANULATED SOAP

A 100% low-titre (39 C) for laundering and general cleaning in hospitals, hotels, institutions, etc. Flakes contain 90% soap; granulated 92%. Uniform, neutral, good odor and color; contains no additives. Meets Federal Specification P.S. 566-B for chip soap.

UTILITY FLAKE and GRANULATED SOAP

High quality tallow-coconut soap compounded with special soda silicate to give product excellent for general sanitary, dishwashing and laundering purposes. Contains 74% pure soap.

TRICOL

A special built soap-base detergent excellent for heavy-duty cleaning, washing and laundering. Granulated. Made from tallow-coconut soap base.

All in standard packages; Osnaburg Bags 100 to 125 lbs.; 24 gal. and 44 gal. fibre drums; 50 lb. drums; 25 lb. cartons; and special packaging where quantity warrants.

Sold exclusively to jobbers and converters

KNOLAR *Products, Inc.*

17th & Federal Sts. Camden 5, N. J.

KNOLAR SOAPS

KRANICH

COSMETIC SOAPS...

Liquid Castile Soap Shampoo
Liquid Coconut Oil Soap Shampoo
Liquid Olive Oil Soap Shampoo
(50% Olive Oil Base)

MAINTENANCE POTASH SOAPS...

Liquid Toilet Soaps
40%, 30% and 20% Coconut Oil
Potash Vegetable Oil Soaps
Soft 40%; Hard 65%; Scrub 20%

GENERAL INDUSTRIAL SOAPS...

Now, Kranich offers a full line of flake and granular soaps to the trade for resale to hospitals, hotels, institutions, etc. for laundering and general maintenance cleaning, and for converters. A flake or granular soap grade to meet every trade need. Ask us for further information and a copy of our new price list.

For 30 years, exclusively manufacturers of soap specialties for the jobber and converter.

Kranich Soap Company, Inc.
54 Richards Street Brooklyn 31, N. Y.

KRANICH SOAPS

ACCEPTED COMMITTEE ON COSMETICS AMERICAN MEDICAL ASSOCIATION

PAX-LANO-SAV . . . Heavy Duty carries the Official Seal of Acceptance of the Committee on Cosmetics of the American Medical Association.

PAX-LANO-SAV

Heavy Duty Granulated Skin Cleanser

helps STOP INDUSTRY'S "BIG ITCH"!

● ***Join the Jobbers Who Are Cashing In by Showing Industrial Customers How to Slash Dermatitis Losses!***

According to a recent survey conducted by OCCUPATIONAL HAZARDS, the average Industrial Dermatitis case costs 10 weeks' lost time plus $147 medical and compensation expense. What's more, it accounts for 60% of all disease cases and almost 40% of all occupational disease compensation.

And the first step recommended in this report to help prevent dermatitis is *adequate washroom facilities and the right cleansers in the washroom.* That's where you come in!

Show your customers how their workers can wash *cleaner, faster, with complete safety* and at *less cost* with PAX-LANO-SAV *Heavy Duty.* Show 'em how much they can save by cutting dermatitis losses. With sales dynamite like this, it's easy to convince them that cheap substitutes for PAX are false economy in the long run — it pays to buy the BEST!

PAX®

LET US PROVE PAX IN YOUR WASHROOM

Look for the PAX ROOSTER—It's your assurance of a Superior Product

The PAX trademark symbolizes a deep-rooted tradition of superlative quality maintained through a quarter century of continuous research and development.

LET US PROVE PAX IN YOUR WASHROOM...NOW!

Write today on your letterhead for a free half pound sample of PAX-LANO-SAV Heavy Duty Granulated Skin Cleanser. Then at your request our representative will gladly conduct a competitive test between PAX and your present brand—let you and your workers be the judge.

There is a complete line of PAX Skin Cleansers and Special Purpose Cleansers—each the finest in its price class.

ALL PRODUCT NAMES USED ARE TRADE NAMES OF THE G. H. PACKWOOD MFG. CO.

G. H. PACKWOOD MFG. CO. • 1539 TOWER GROVE AVE. ST. LOUIS 10, MO.

they're thinking TORNADO®

... and for good reasons

BIG

National Advertising Program

The Breuer advertising program for Tornado equipment reaches ¾ of a million potential purchasers every month. These are carefully selected readers in the big, ready-to-buy markets spending millions annually on cleaning equipment and materials. They're all fast becoming Tornado-wise.

COMPLETE

Product Line

This is the line that features a machine for every important type of floor, fixture and equipment cleaning. Tornado quality in every machine does a better job of all industrial, institutional and commercial cleaning.

COORDINATED

Factory-Distributor Program

Comprehensive sales helps, forceful literature and a host of other dynamic selling aids tie the big Tornado program into a complete package for close cooperation all the way to the consumer.

ADS LIKE THESE APPEAR IN THESE MAGAZINES

FLOOR MACHINES VACUUM CLEANERS BLOWERS & SPRAYERS

BREUER ELECTRIC MFG. CO

5082 N. RAVENSWOOD AVENUE • CHICAGO 40, ILLINOIS

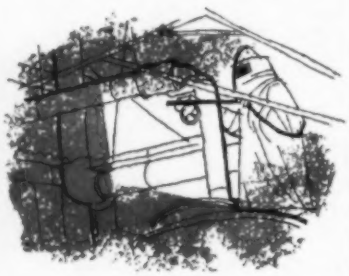
THE Digest

HELPFUL PRODUCT NEWS FOR SOAP AND DETERGENT FORMULATORS

Largest Electric Furnace Starts to Produce Tons Of Elemental Phosphorus

There's something new to be seen along the old Oregon Trail. Here in the town of Soda Springs, Idaho, a giant new chemical operation is now underway — the world's largest electric furnace for producing elemental phosphorus has begun tonnage production.

The operation of this new furnace represents the culmination of several years' work and planning by Monsanto. For three years Mon-



santo's Phosphate Division experts scouted mineral deposits, plant sites, power sources and transport in the Rocky Mountain area. Finally in mid-1951, the multimillion-dollar plant began going up at Soda Springs, deep in the heart of the world's largest known deposits of phosphate ore.

The plant bolsters Monsanto's position as the world's biggest producer of elemental phosphorus —and more furnaces will be built in the future.

Rugged power shovels take huge 10-yard bites of phosphate ore and dump it into specially designed, cantilevered trucks— trucks that haul *25 tons* at a load.

The ore is carried by trucks to the plant, and that is the last glimpse anyone has of the phosphate until it is transformed into phosphate salts which are used for everything from polishing agents in toothpastes to wonder workers in soaps and detergents.

The ore, in the furnace, is mixed with coke and silica sand. The resulting reaction reduces phosphorus pentoxide to elemental phosphorus vapor. This vapor is changed into a liquid and pumped in molten form to tank cars. These cars carry it to Monsanto plants at Trenton, Mich., Monsanto, Ill., and Carondelet, Mo., where it is changed into phosphoric acid and countless phosphate salts.

Basic Line of Phosphates Has Many Uses for Formulators

Today—more than ever before— phosphates are a basic chemical family serving the soap and detergent industries.

The sodium salts of phosphoric acid, in particular, have played roles of major importance in the development of modern soaps and detergents. Without the help of such compounds as trisodium phosphate, tetrasodium phosphate and tripoly phosphate, both the housewife and the industrial cleaner would have a far more difficult task with their washing duties.

In meeting the challenge set up by the development of newer, more effective soaps and detergents, Monsanto has grouped its research, production and service facilities into a tightly integrated, nationwide network.

Two fully staffed research laboratories, seven giant electric furnaces and three modern plants team together to produce products which have become the standards of quality in their field.

Monsanto trisodium phosphate, for example, was one of the first soap builders to be used. It immediately established itself and has continued as a favorite because of its water-softening ability and high detergency value.

Tetrasodium pyrophosphate, TSPP, produced by Monsanto, is another important component in many soap powders. It is widely preferred because it possesses both emulsifying and water-softening properties.

A third Monsanto compound that is becoming increasingly

popular with many formulators is sodium tripolyphosphate.

Excellent calcium-sequestering power, high detergency, good physical and chemical stability, high water solubility . . . these are some of the outstanding characteristics of STP. Moreover, this compound is compatible with all alkalies, although, by itself, it exhibits only a mild alkalinity that's not deleterious to hands or fine fabric.

STP, TSPP, and TSP, however, are only a part of the complete line of phosphates produced by Monsanto. And regardless of the particular product you require, you can be sure its quality and purity will be the best you can buy on the market. You can be sure, because Monsanto is a *specialist* in phosphates, controlling *all* steps of production on from mining to final delivery.

New Santomerse Has Greatly Improved Detersive Properties

Be sure to test Monsanto's new, improved Santomerse No. 1.

This wetting agent has recently been up-graded to give vastly superior performance.

Faster wetting . . .

Better sudsing . . .

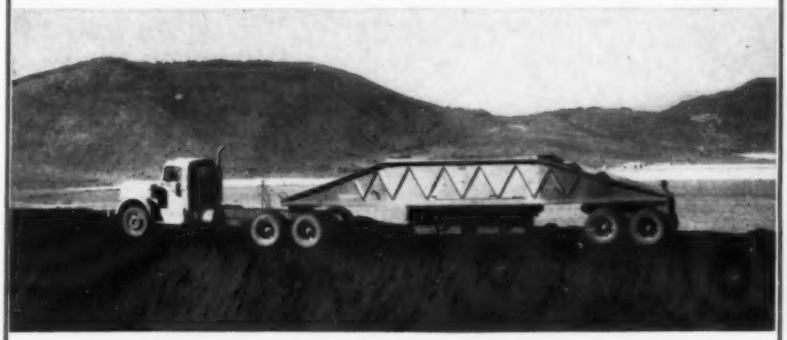
Improved surface activity . . .

These are three of the sales-building features that come with every shipment of the new Santomerse, thanks to improved processes of manufacture and production.

For more information mail the coupon.

SANTOMERSE: REG. U. S. PAT. OFF.

More Phosphorus From Soda Springs...



25 TONS of phosphate ore per load are moved swiftly and easily—by these specially designed trucks—to Monsanto's huge new furnace at Soda Springs, Idaho.

A Digest PICTURE STORY

WORLD'S LARGEST ELECTRIC FURNACE is now turning out thousands of pounds of phosphorus daily to meet your growing demands for detergent phosphates.

TSP, TSPP, STP and many other phosphates are made from phosphorus produced at Soda Springs and are delivered to you from modern loading areas such as those shown.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle, Twin Cities. In Canada, Monsanto Canada Limited, Montreal.

MONSANTO CHEMICALS – PLASTICS

SERVING INDUSTRY ... WHICH SERVES MANKIND

MONSANTO CHEMICAL COMPANY
Phosphate Division, 1700 South Second Street
St. Louis 4, Missouri

Please send more information on:

☐ STP ☐ TSPP ☐ TSP ☐ Phosphorus ☐ Santomerse

Name..... Title.....

Company.....

Street.....

City..... Zone..... State.....

DETERGENT

EMULSIFIER

WETTING AGENT

One of the most effective agents in existence, **NEUTRONYX 600** has an extremely wide range of uses for wetting and emulsifying effects with substantial economies.

A dependable non-ionic detergent, **NEUTRONYX 600** is compatible with acids, alkalies, electrolytes, hard water and both cationic and anionic surface agents.

NEUTRONYX 600

NEUTRONYX 600 is a chemically stable aromatic polyglycol ether which does not deteriorate in storage and can be used at elevated temperatures because of its low volatility.

For full data on its extreme and varied usefulness, write for bulletin, **NEUTRONYX 600.**

In addition, our fully equipped laboratories are available on any problem of practical application.

ONYX

OIL & CHEMICAL COMPANY

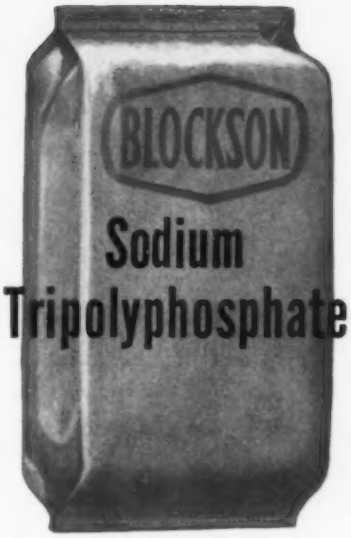
INDUSTRIAL DIVISION

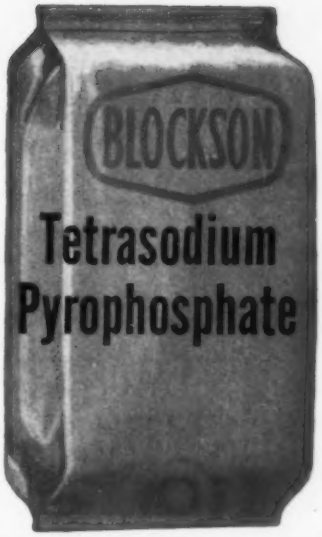
186 WARREN ST., JERSEY CITY 2, N. J.

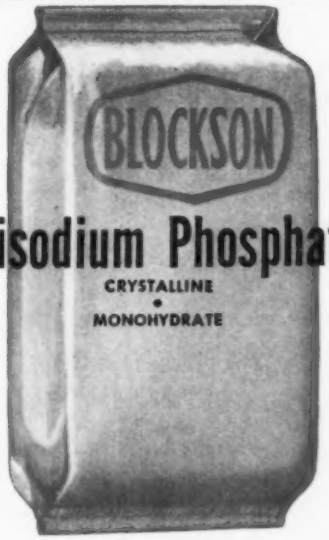
CHICAGO · BOSTON · CHARLOTTE · ATLANTA

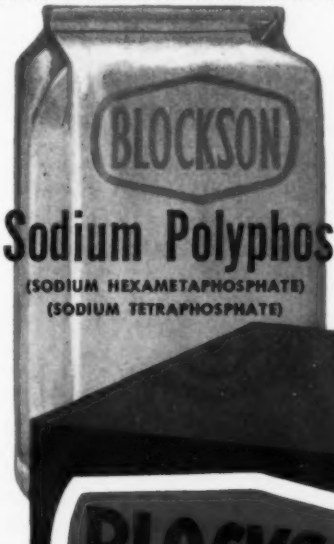
For Export: ONYX International, Jersey City 2, N. J.

West Coast Representative: E. I. Browning Co., San Francisco, Los Angeles









Sodium Polyphos is Blockson's brand name for a water soluble Glassy Sodium Phosphate with the desirable characteristics of Sodium Hexametaphosphate and Sodium Tetraphosphate.

ALSO MAJOR PRODUCERS OF:

SODIUM ACID PYROPHOSPHATE

CHLORINATED TRISODIUM PHOSPHATE

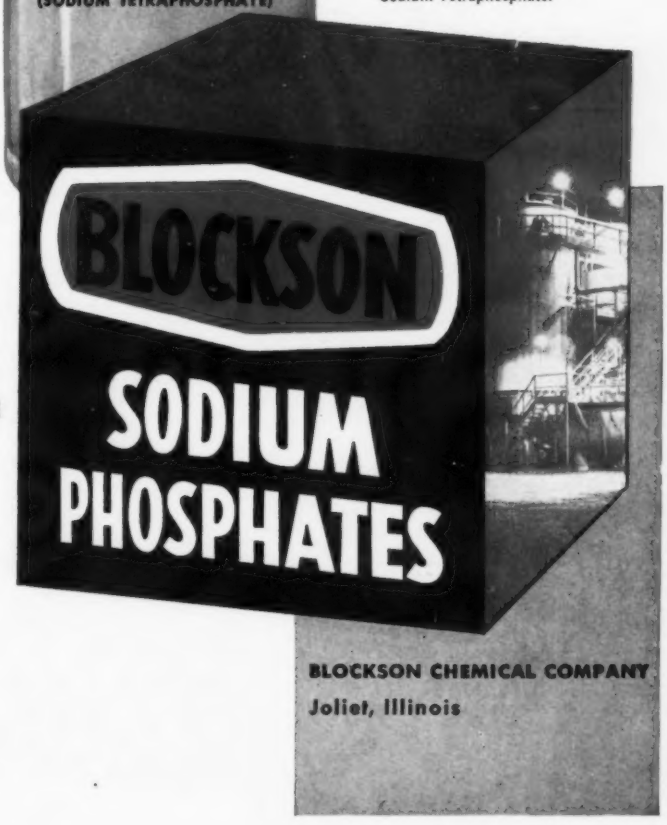
DISODIUM PHOSPHATE
ANHYDROUS • CRYSTALLINE

MONOSODIUM PHOSPHATE
ANHYDROUS • MONOHYDRATE

SODIUM FLUORIDE

SODIUM SILICOFLUORIDE

HYGRADE FERTILIZER



BLOCKSON CHEMICAL COMPANY
Joliet, Illinois

MR. SOAPER!

If you're not selling detergents

you're missing ½ of the market!

With Detergent* ALKANE *you can double your sales potential!

You know that detergents are here to stay—already they comprise 50% of washing product sales.

If you're planning for the future, now is the time to get into the detergent market. It may be easier and less costly than you think.

Oronite can now offer you improved Alkane—the basic raw material used in making the highest quality synthetic detergents. Alkane is available at a consistent low price. In the past seven years, because of expanding production and improved technology, there have been many price decreases on Alkane. Thus Alkane assures you of a stable market price on your finished detergent product.

Our engineering service has a plant design to fit your needs. A large equipment investment may not be required to sulfonate your own detergents from Oronite Alkane—possibly a great amount of your present equipment can be utilized. (Alkane is available in assured supply from three strategically located bulk terminals.)

Our technical assistance is available to you free of charge. Equipment prices, performance data, yields and all other technical information to show you how to make detergents profitably can be furnished on request.

If you are interested in entering the detergent market, or wish to see how economically you can convert your own plant to detergents, address an inquiry to any Oronite office. We will have a qualified representative contact you.

ORONITE CHEMICAL COMPANY

THE NAME TO WATCH IN CHEMICALS

"World's largest producer of synthetic detergent raw materials"

ORONITE CHEMICAL COMPANY

38 SANSOME STREET, SAN FRANCISCO 4, CALIFORNIA
30 ROCKEFELLER PLAZA, NEW YORK 20, NEW YORK
STANDARD OIL BLDG., LOS ANGELES 15, CALIFORNIA
600 S. MICHIGAN AVENUE, CHICAGO 5, ILLINOIS
MERCANTILE SECURITIES BUILDING, DALLAS 1, TEXAS

2612

Good News FOR YOUR ISOPROPYL ALCOHOL PRODUCTS!

Isoblend Floral Odors

NEW FLOWER FRAGRANCES FOR USE WITH ISOPROPYL ALCOHOL

These new Isoblend Floral Odors cover the Isopropyl Alcohol odor and, at the same time, add a lovely flower note. They enable you to make a finished toilet water, colored any shade you desire, at the astonishingly low price of ..... **83¢** per gallon

ODORS AVAILABLE

Rose Isoblend	Jasmin Isoblend	Violet Isoblend
Lilac Isoblend	Fougere Isoblend	Wisteria Isoblend
Bouquet Isoblend	Sweet Pea Isoblend	Gardenia Isoblend
Honeysuckle Isoblend	Pine Needle Isoblend	Eau de Cologne Isoblend
Apple Blossom Isoblend	Spice Bouquet Isoblend	Orange Blossom Isoblend

Bay Rum ISOBLEND

For Bay Rum products made with Isopropyl Alcohol

This special oil, recently developed by our Laboratories, is available at only $4.25 per pound.

Formula for Use:

2 ozs.—Bay Rum Isoblend
64 ozs.—Isopropyl Alcohol 99%
Water—Quantity sufficient to make one gallon

Color—As desired

Shavlotion BOUQUET OIL

For Shaving Lotion made with Isopropyl Alcohol

Here is an oil developed especially for top quality, low priced shaving lotions. At $8.00 per pound, you can make a gallon of finished Shaving Lotion for only 80c.

Formula for Use:

1 oz.—Shavlotion Bouquet Oil
64 ozs.—Isopropyl Alcohol 99%
Water—Quantity sufficient to make one gallon

All prices F.O.B. New York

Order a trial quantity for your own experiments

AROMATIC PRODUCTS, INCORPORATED

15 East 30th Street, New York 16

CHICAGO • DALLAS • MEMPHIS • PITTSBURGH • LOS ANGELES • BOSTON

right direction
for improved detergents

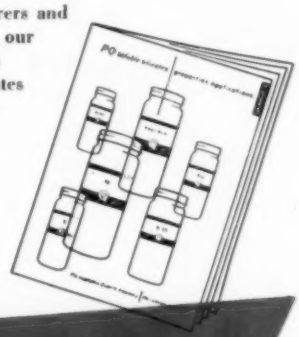
You can depend on PQ Soluble Silicates to improve soil removing properties of soaps, cleaners, synthetic detergents and compounds. Here are improvements that you can measure in emulsification, dirt suspension, prevention of dirt re-deposition, protection to metals.

Take, for instance, the valuable inhibiting characteristic of soluble silicates in household and commercial detergents. From 20% to 30% of PQ Silicate (trisilicate, disilicate and metasilicate) used in these formulas are effective for controlling corrosion as well as for building improved detergency.

right direction...

free guide to improved detergents

A good guide for manufacturers and compounders of detergents is our Bulletin 17-1 on PQ Silicates of Soda and Potassium Silicates available without obligation. Let us help you to choose the right silicates for your formulas.



METSO

PQ

PQ Silicates of Soda

METSO DETERGENTS

PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Building, Philadelphia 6, Pa.

stops the eye . . . starts the sale

pack to attract in maryland blue

Here is true double-take packaging. It stops the busiest shoppers . . . stops their eyes and starts the sale. It's double-duty packaging, too. Acts as a strong, practical container and as a powerful advertising, merchandising and selling tool. Maryland Blue Glass makes your product stand out and shout "Buy Me!" So follow the lead of many famous brands . . . pack to attract in Maryland Blue. Write for samples today.

MARYLAND GLASS CORPORATION • BALTIMORE 30, MARYLAND

also available in clear glass

Q. WHAT Floor Waxes ARE SPECIFIED MORE AND MORE BY SCHOOLS AND OTHER INSTITUTIONS?
A. WAXES THAT COMBINE
ANTI-SLIP SAFETY!
PLUS LONG-WEARING BEAUTY

THAT MEANS WAXES CONTAINING DU PONT "LUDOX"

Now institutions can give floors anti-slip safety *and* durable beauty by using waxes containing Du Pont "Ludox" colloidal silica. Invisibly tiny particles of "Ludox" in waxes offer new walking safety, *as well as extra film hardness.*

And waxes properly formulated with "Ludox" are fully equal to the best of floor waxes in gloss, water resistance, leveling, and other desirable properties. With all these advantages, you can see why waxes containing "Ludox" are specified by more and more safety and maintenance engineers.

If you are not already meeting the growing demand for anti-slip waxes with "Ludox," ask your wax supplier about them today. Or, if you want to manufacture a wax containing "Ludox," write E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, 4147-C Du Pont Bldg., Wilmington 98, Delaware.

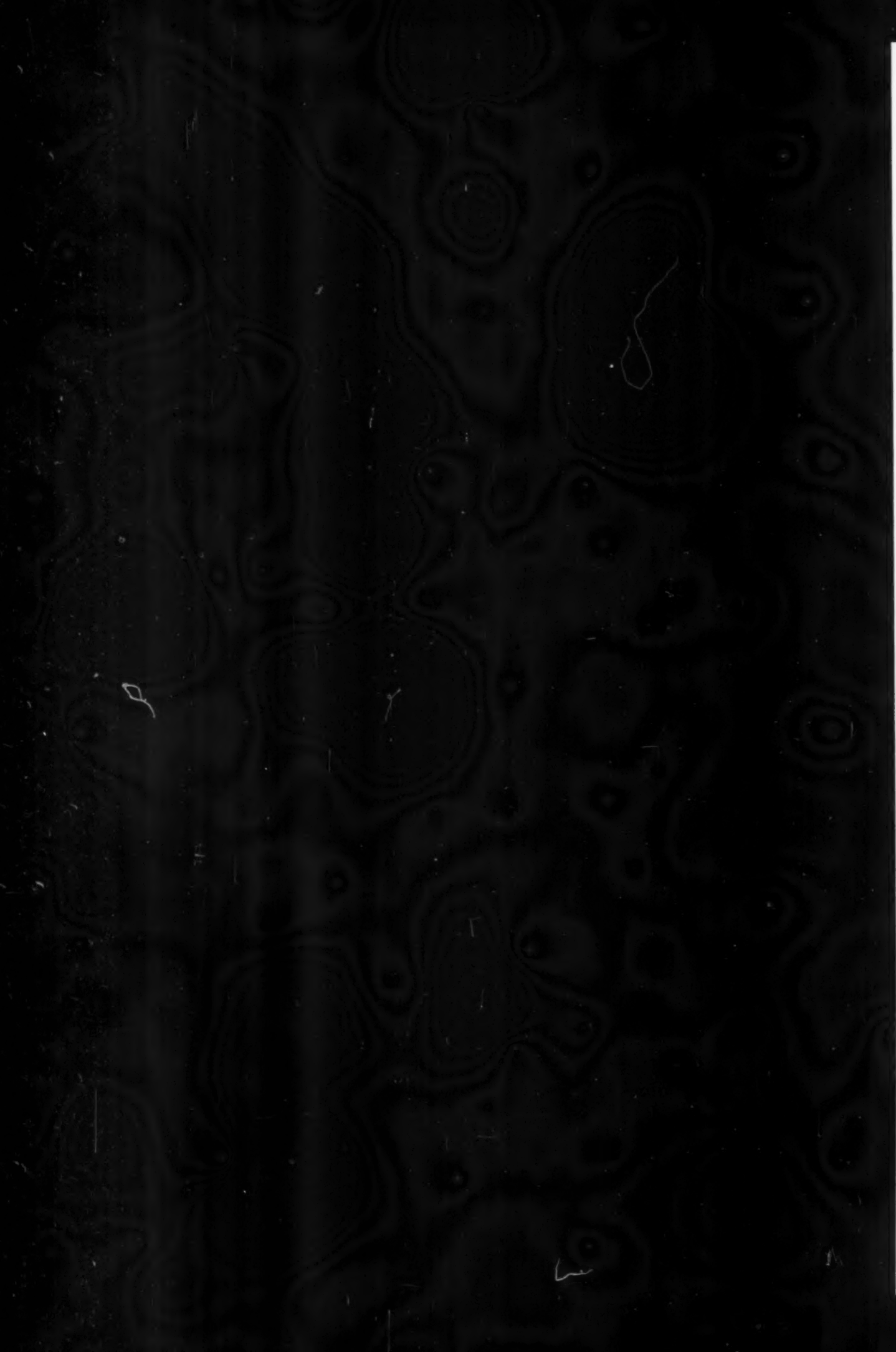
How "LUDOX" gives slip resistance

As the foot presses on the waxed floor, submicroscopic particles of "Ludox" (so small that there are more than 300 trillion under the heel alone) press into larger, softer wax particles. This provides a unique snubbing action . . . helps keep the foot from slipping.

DU PONT **LUDOX** Colloidal Silica

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*



After Closing . . .

McConnell C-P-P President; E. H. Little Chairman of Board

THE long awaited announcement confirming rumors circulated since shortly after the first of the year that Joseph H. McConnell, former president of National Broadcasting Co. would become president and E. H. Little, head of the firm, would become board chairman of Colgate-Palmolive-Peet Co., Jersey City, N. J., was issued Feb. 12. Mr. Little has been president of the company since 1938. He continues to serve as chief executive officer under an amendment to the by-laws adopted at a meeting of the board Feb. 10. James A. Reilly, executive vice-president in charge of soap sales, was elected a director. Charles S. Pearce and S. B. Colgate are honorary chairmen of the board.

It was reported early in January that Mr. McConnell was slated to become president of Colgate-Palmolive-Peet Co. following his resignation late in December after three years as head of N.B.C. Although reports of the shift at the Jersey City concern were termed "premature" by Mr. Little. The reason given was that according to the company's by-laws it was necessary to have the board of directors consider the matter at two meetings before election of a man outside the company.

Edward Herman Little, like his successor, is a North Carolinian. He is 71 years old, and joined the Colgate organization as a salesman in North and South Carolina in 1902. He became Colgate district manager in 1906. He joined Palmolive in 1914. He served consecutively as district sales manager at Los Angeles and New York, then as New York district sales manager, and as assistant general sales manager. Four years after joining Colgate it was necessary for Mr. Little to resign after becoming district manager in Memphis because of ill health. He went to Denver to recuperate, following which he rejoined the Palmolive company.

In 1928, at the time of the merger of the Colgate and Palmolive companies, he was general manager in charge of foreign operations of the Palmolive company and continued in that position until his election in 1933 as vice-president of Colgate-Palmolive-Peet Co. in charge of sales and advertising throughout the world.

The pattern of Colgate's extensive foreign operations was largely established by Mr. Little. World-wide sales of the company and subsidiaries have increased from approximately $100,000,000 when he became president in 1938 to more than $350,000,000 in 1952.

The new president of Colgate-Palmolive-Peet Co. is a 46-year-old lawyer, who has a background in finance and business administration. He was born in Chester, S. C. on May 13, 1906. His parents resided at Davidson, N. C., where his father was dean of Davidson College, and from which Mr. McConnell was graduated in 1927. He was active in many school affairs and gained prominence as a football player. Following his graduation from Davidson in 1927, Mr. Conneli taught chemistry at Woodberry Forest School in Virginia and also coached football. At that time he decided upon the legal profession for his career and in 1928 entered the University of Virginia Law School, where he coached the freshman football and scouted for the varsity. In 1931, he was graduated with a Bachelor of Law degree and was elected to Phi Beta Kappa.

He began his career in law with a firm in West Palm Beach, Fla. in 1931, and in 1932 joined a law firm in Charlotte, N. C. A year later, he was

JOSEPH H. McCONNELL

E. H. LITTLE

JAMES A. REILLY

invited to join the legal staff of the NRA in Washington, under Donald Richberg. He served as director of one of the agency's three legal sections until 1935, when the NRA was dissolved.

Mr. McConnell then became associated with the law firm of Cotton, Franklin, Wright and Gordon (now Cahill, Gordon, Zachry and Reindel) in New York City. There he specialized in legal phases of government regulation of corporate enterprises. It was with this firm that Mr. McConnell began his association with Radio Corporation of America, National Broadcasting Company's parent corporation, when his services were assigned largely to RCA Manufacturing Company.

In 1941, Mr. McConnell joined the legal department of RCA Manufacturing Company, which is now the RCA Victor Division. Within a year, in 1942, he became general counsel of that organization and three years later was elected vice-president and general attorney of the RCA Victor Division. From April, 1947, to January, 1949, he served the same division as vice-president in charge of law and finance. In January, 1949, he became vice-president in charge of finance for RCA, —the parent company, and in July, 1949, was elected executive vice-president of RCA. It was that post he left to assume the presidency of N.B.C.

Mr. McConnell is to take up his new duties March 1. He is understood to have been on an extended southern vacation since resigning as NBC president. Mr. Little's appointment went into effect immediately.

James A Reilly, a Colgate career man and top soap sales executive of the firm, has been with the company for more than 26 years. He started with Colgate in 1926 as a display man, and then worked his way up through every position in the soap sales department from assistant salesman to executive vice-president, the position to which he was elected last year.

—— ♦ ——

Decontrol Soap Prices

Decontrol of prices of soaps, cleansers, detergents and fats and oil was effected Feb. 12 by the Office of Price Stabilization. The order became effective immediately.

Leppart Heads Squibb

John C. Leppart, executive vice-president of the Mathieson Chemical Corp., Baltimore, has been elected president of E. R. Squibb & Sons, New

JOHN C. LEPPART

York, to succeed Theodore Weicker, Jr. Mr. Leppart will continue as executive vice-president of Mathieson.

John J. Touhy, associated with Squibb for the past 31 years, has been elected executive vice-president of the company in charge of all domestic production and sales. He succeeds C. M. Van Kirk, former executive vice-president who is retiringg after 26 years service and who will act as a company consultant.

Other Squibb personnel changes include the appointment of W. R. McHargue as vice-president in charge of advertising and marketing, and W. L. Arscott as vice-president and sales manager in charge of domestic operations. Mr. Leppart, the new Squibb president, will move his headquarters from the Mathieson offices in Baltimore to the Squibb offices in New York.

—— ♦ ——

New Hollingshead Wax

The industrial division of R. M. Hollingshead Corp., Camden, N. J., recently announced the development of a new anti-slip "Triple Service Floor Wax." The new wax, according to the manufacturer, is designed to give optimum performance in all respects for low-cost floor care. Underwriters' Laboratories list the product as a highly anti-slip material. The new wax dries in less than 20 minutes to a transparent shine. Also, tests have shown, it is easy to remove and yet is water resistant within one hour after application. A loose-leaf illustrated data sheet on the new "Triple Service Floor Wax" and where the new wax is available, may be obtained by contacting the industrial division of the corporation.

—— ♦ ——

Armour Fatty Acid Data

A file type folder on its "Neo-Fat" fatty acids, their specifications and average composition has just been announced by Armour Chemical Division, 1355 W. 31 St., Chicago 9, Ill. Copies are available on request.

At the same time Armour Chemical Division announced a booklet on its line of chemicals and fatty acids. Covered in the booklet, which is also available on request at the above address, are the amines, amine acetates, amides, quaternaries, nitriles and ethochemicals.

—— ♦ ——

Diversey Plant in Hawaii

Acquisition of Kills 'Em Chemical Co. of Honolulu, Hawaii, by Diversey Corp., Chicago, was announced recently. Kills 'Em Chemical manufactures household disinfectants, and will make Diversity products for food plant sanitation purposes in its plant in Honolulu. Under the acquisition, 11,074 shares of Diversey stock were exchanged for Kills 'Em stock on the basis of eight shares of Diversey for 10 shares of Kills 'Em.

—— ♦ ——

Mennen Opens New Plant

Mennen Co., Newark, N. J., recently started production at its new $5 million plant on Hanover Avenue, Morris Township, N. J. A special ceremony marked the beginning of operations and transfer of machinery and equipment from the Newark plant which will take more than three months.

George Mennen, vice-president in charge of production, and William Mennen Jr., vice-president in charge of marketing, announced that the company is using a staggered method of transfer of production lines to minimize possible inventory loss.

FOR *Quality* THAT BUILDS CUSTOMER SATISFACTION AND REPEAT PROFITS...

Feature

PURO

Deodorants

MORE ECONOMICAL... LONGER LASTING

MADE OF 100% PURE PARADICHLOROBENZENE FUSED WITH FINE LONG LASTING PERFUME OILS ON HUGE MODERN POWER PRESSES. ATTRACTIVELY PACKAGED!

OUTSTANDING SELLER FOR EVERY PUBLIC USE

PURO 4 OZ. DEODORANT BLOCKS

Most popular size and shape, for urinals and general use. Made to U. S. Navy specification MIL-D-2178. Attractive cellophane wrap and special tube containers protect from evaporation. Available in pleasant Surf, Lilac and Rose colors. Economical—long lasting.

EXTRA PROFITS FROM THIS EXCLUSIVE SPECIALTY

PURO SANA-BOLE DEODORANT—

Banishes odors at their source. Patented "Snap-on" wire hanger holds cake securely in bowl and practically out of sight. Delicate flower-like fragrance. Ideal for home, hotel and public toilets —a much larger market than urinal blocks. A sensational repeater, 4 oz. cake.

NEW HEAVY DUTY HANGER BLOCKS

PURO JUMBO DEODORANT BLOCKS

By popular demand, now available in 8, 12, 16 and 24 oz. cakes which are effective longer over a larger area. The three larger blocks come in convenient hanger containers. Cellophane wrap prevents evaporation before use. In clean smelling Surf, Lilac and Rose.

THE *Puro* COMPANY, Inc.

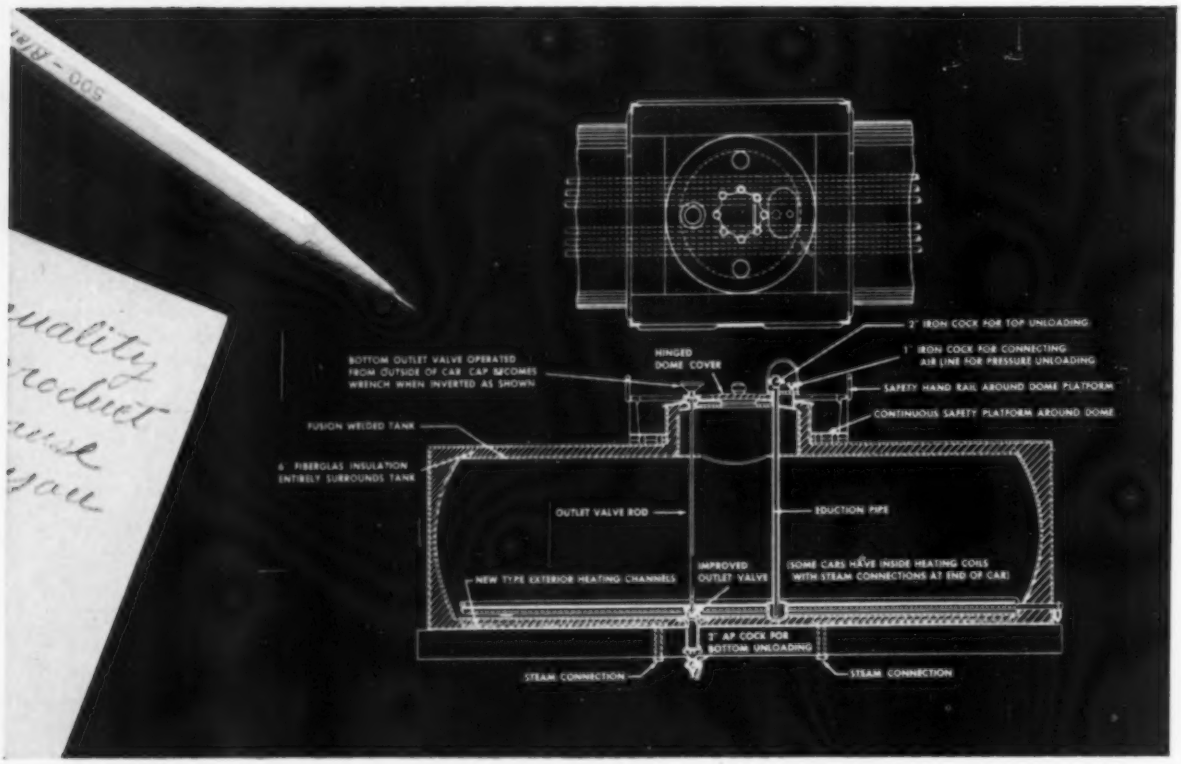
(ESTABLISHED 1929)

2801 LOCUST STREET **ST. LOUIS 3, MO.**

WRITE FOR SAMPLES AND JOBBER PRICES

MODERN TANK CARS MAINTAIN HIGH QUALITY OF DOW CAUSTIC SODA FROM PLANT TO YOU

Special design permits safe, fast shipment and convenient unloading


2" IRON COCK FOR TOP UNLOADING
1" IRON COCK FOR CONNECTING AIR LINE FOR PRESSURE UNLOADING
HINGED DOME COVER
BOTTOM OUTLET VALVE OPERATED FROM OUTSIDE OF CAR CAP BECOMES WRENCH WHEN INVERTED AS SHOWN
SAFETY HAND RAIL AROUND DOME PLATFORM
CONTINUOUS SAFETY PLATFORM AROUND DOME
FUSION WELDED TANK
6" FIBERGLAS INSULATION ENTIRELY SURROUNDS TANK
OUTLET VALVE ROD
EDUCTION PIPE
NEW TYPE EXTERIOR HEATING CHANNELS
IMPROVED OUTLET VALVE
(SOME CARS HAVE INSIDE HEATING COILS WITH STEAM CONNECTIONS AT END OF CAR)
3" AP COCK FOR BOTTOM UNLOADING
STEAM CONNECTION
STEAM CONNECTION

All of Dow's caustic soda shipping points throughout the country maintain a large fleet of modern tank cars.

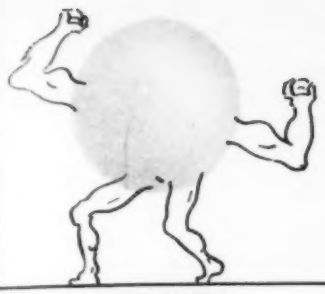
Each of these Dow owned cars is insulated, protectively lined and fitted with nickel heating coils. They are equipped to permit unloading from the top or bottom by air pressure or pump. There are frangible discs or safety valves to prevent possible injury to workers from excessive air pressure and they have protective plug cocks on the bottom outlet leg.

When you order caustic soda solution from Dow, regardless of whether shipment is made from Dow's three large plants at Midland, Michigan, Freeport, Texas and Pittsburg, California or from terminals at Carteret, New Jersey, Charleston, South Carolina or Los Angeles, California, you can be certain of dependable delivery of high quality caustic. All tank cars are expertly maintained and thoroughly washed and inspected before every loading. Caustic soda 48-50% solution and 71-73% solution are delivered in 8,000 and 10,000 gallon tank cars.

The next time you buy caustic soda, whether it is solution, solid, flake or ground flake, buy from Dow. Write for Dow's CAUSTIC SODA HANDBOOK for complete unloading, handling and product information. Wherever you are, you're close to Dow caustic soda. THE DOW CHEMICAL COMPANY, Midland, Michigan.

you can depend on DOW CHEMICALS

DOW



1. STRONG

Nacconol Dense Beads do not tend to break down during mechanical mixing operations

2. DUST FREE

Free from dust when made, NACCONOL DB remains dust free in your mixtures

3. BULKY

Pound for pound, NACCONOL DB bulks up better . . . helps you deliver the loose, free-flowing mixtures so much in demand

4. UNIFORM

Photomicrograph confirm what you instantly recognize by trickling a handful through your fingers; NACCONOL DB is remarkably uniform and free flowing

X100 Enlargement

4 big reasons for the ever growing popularity of Free-Flowing

Nacconol* DB

AMERICA'S LEADING SYNTHETIC DETERGENT

Dense Beads Develop Business—that's the report of formulators who have incorporated NACCONOL DB in their mixtures.

In our Buffalo plant, modern equipment (designed especially for the purpose) produces perfectly formed and remarkably uniform "beads", as is clearly shown below in the 100X enlarged photograph of NACCONOL DB. Using this synthetic detergent, you can deliver better mixtures than ever before.

SEND FOR TECHNICAL BULLETIN NO. 316

You should read this test report on the physical strength of NACCONOL DB which gives test results on how it stands up in mechanical mixing operations. You should also have samples, price and delivery quotations. A phone call or letter to our nearest offices will bring them—promptly.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2246

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3080	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOcust 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReenboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 4-6347
Portland 9, Ore., 720 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 254 E. Paces Ferry Rd.	EXchange 3594
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3357	New Orleans 12, La., 714 Carondelet Bldg.	Raymond 7228
Charlotte 1, N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-6495

*Reg. U.S. Pat. Off.

Books for your PLANT LIBRARY

When you need "facts" about chemical specialty and soap products, look them up in the standard reference books of the trade —these books contain the latest "know-how" for manufacturers, blenders and compounders. Order on the form below.

MODERN CHEMICAL SPECIALTIES

by Milton A. Lesser

THIS 514 page text covers the formulation, manufacture, and use of polishes, cleansers, detergents, floor-care, leather-care and textile products, industrial, household, and many other allied chemical specialties. Each of the 42 chapters deals with a different specialty and includes formulas and manufacturing methods for that specialty. The manufacturer, marketer, chemist and production man will find this book of great value.

SOAPS AND DETERGENTS

by E. G. Thomsen and John W. McCutcheon

THE latest and only complete American book on soap manufacture, "Soaps and Detergents" is primarily a practical book for the practical production man, chemist, or executive. It covers such subjects as soap making methods, equipment and machinery, raw materials, perfuming and coloring, glycerine recovery, and properties and applications of finished soap and detergent products. No soap or detergent laboratory, plant, or office should be without this standard volume.

SYNTHETIC DETERGENTS

by John W. McCutcheon

A PRACTICAL 435-page book concerned primarily with the detergent compounds, defining the various types of synthetics as to class, manufacture, application and processing. In addition to a thorough analysis of the manufacturing processes involved and a discussion of source and preparation of raw materials, the author presents an adequate theoretical background on the fundamentals of surface activity and the relation of surface activity to detergency, emulsification, foaming, wetting and dispersion. This text will be of interest to all in the detergent field, including those concerned with the manufacture, packaging, application and processing of surfactants, as well as those supplying raw materials.

Send Check with Order

TEAR OFF AND MAIL

MAC NAIR-DORLAND CO.
254 West 31st Street
New York 1, N. Y.

Add 3% Sales Tax if in New York City

Enclosed is our check for $..... Please send the following book(s):

..... Modern Chemical Specialties, Price $7.25 in U. S. A.; $7.75 elsewhere
..... Soaps and Detergents, Price $9.00 in U. S. A.; $9.50 elsewhere
..... Synthetic Detergents, Price $7.10 in U. S. A.; $7.60 elsewhere

Company .....

Address .....

By .....

The preferred detergent for laundries, restaurants, institutions

SULFRAMIN* BUILT BEADS

MOUNTAINS OF SOAP-LIKE SUDS FOR YOUR CUSTOMERS AND PROFITS FOR YOU!

Sulframin Built Beads — in spray dried form — are setting a new high standard for detergents in the restaurant and institution field.

Sulframin Built Beads assure customer satisfaction, good profits and a steady repeat business for you.

In laundry work, the thorough wetting, powerful detergency and free rinsing qualities of Sulframin Built Beads will please your customers, assure you of repeat business.

Produced in accordance with a balanced formula, containing dodecyl benzine sulfonate, complex phosphates, CMC, and a great white dyestuff, Sulframin Built Beads assure economical performance, even in hardest water.

Packed for your convenience in 130 lb. drums, 90 lb. drums, or 50 lb. bags.

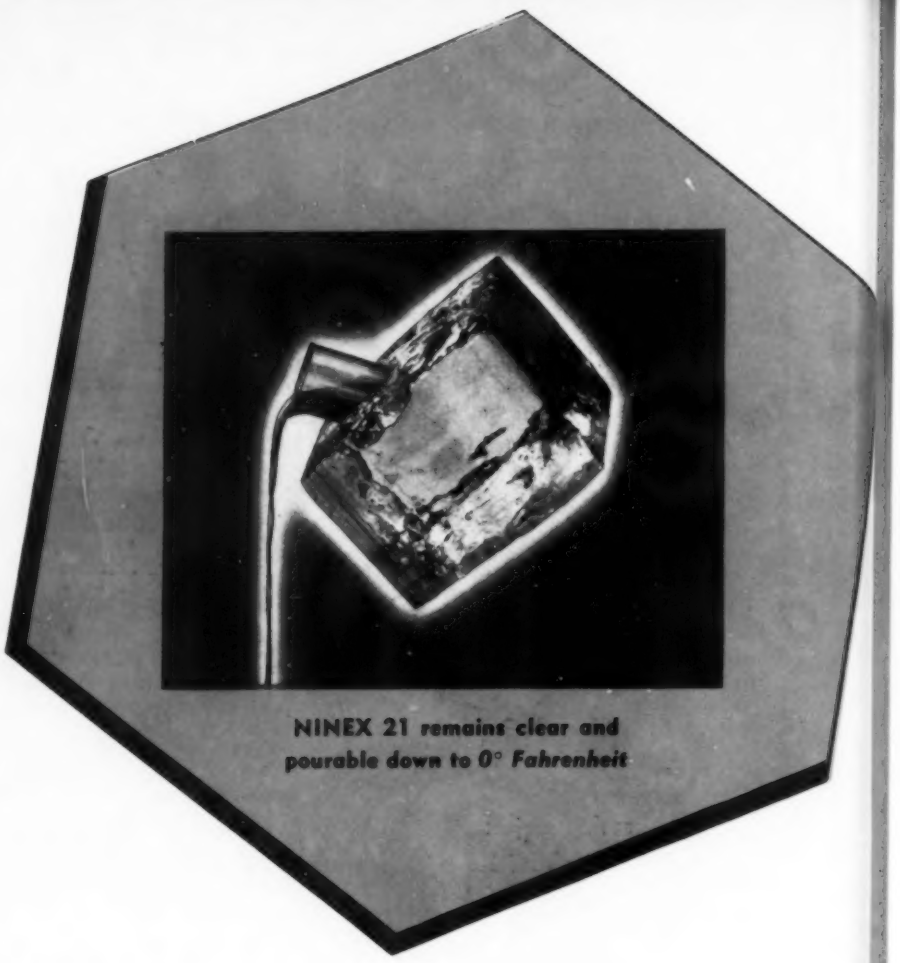
SEND FOR FREE SAMPLE AND FULL DETAILS ON PROFITABLE SULFRAMIN BUILT BEADS TODAY!

ULTRA Chemical WORKS

ULTRA CHEMICAL WORKS, INC.

Joliet, Ill.
Paterson, N. J.
Hawthorne, Calif.

*Trade Mark Reg.



NINEX 21 remains clear and pourable down to 0° Fahrenheit

THE IDEAL BASE for:

Liquid Dishwashing Compounds

Carwashing Detergents

Fabric and Cosmetic Shampoos

All-Purpose Cleaners

Manufactured by Ninol Laboratories' revolutionary new Sulphur Trioxide method of Sulfonating, NINEX 21 is a blend of special salt free Sulfonates and foam-stabilizing amine condensates, containing a total of 60% active detergents.

The amazing acceptance of NINEX 21 by specialty chemical compounders across the country is due to its unusual combination of desirable features:

- High stable suds
- Clarity and viscosity on dilution
- Non-rusting properties
- Unusually low cost

and

EXCEPTIONAL RESISTANCE TO FREEZING

A High-Foaming Liquid Detergent with Excellent Freeze-Resistance

NINEX 21

Send for samples and copy of Bulletin S-102

NINOL

Detergents— —Emulsifiers

ALSO

NINOL 1281	For synthetic floor cleaners, or for mixing wet soap.
NINOL 128	for low priced viscous nonionic bar glass cleaners; also viscous detergent sanitizers.
NINOL AA62	For stabilizing foam of alkyl aryl sulfonates.
NINOL HA10	For water-in-oil emulsions such as absorption bases, dry cleaning detergents, etc.

NINOL LABORATORIES

1719 S. CLINTON • CHICAGO 16 • PHONE CHESAPEAKE 3-9625

In Canada: Chemical Developments of Canada Ltd., 420 Lagauchetiere Street W., Montreal 1, Quebec

Fragrance Makes the Heart Grow Fonder...

PEOPLE RESPOND to fragrance... whether it's on a pretty girl or on a product. To find the one *right* fragrance for your product dial our nearest office. You and your perfuming problems will be answered by a perfect combination of skill, resources and experience.

NAUGAROMES—For various industrial and commercial uses.

SOAPOLS—For bar, paste and liquid soaps.

SHAMPAROMES—For liquid, cream and paste shampoos.

MODERN BASES—For fine perfumes, colognes, toilet waters, toilet preparations, etc.

CREAMODORS—For all types of creams and lotions.

NAUGATUCK AROMATICS

DIVISION OF UNITED STATES RUBBER COMPANY

254 Fourth Avenue, New York 10, N.Y.—701 South La Salle Street, Chicago 5, Ill.

Toronto—Montreal

Sole Distributors for:

JEAN ROURE, PIERRE ZILLER, BRUNO COURT S. A.

GRASSE, FRANCE

MANUFACTURERS OF AROMATIC CHEMICALS—IMPORTERS OF ESSENTIAL OILS

An Invitation to the . . .

30th Annual Convention
National Sanitary Supply Association

March 22, 23, 24, 25

Conrad Hilton Hotel
Chicago, Ill.

The Officers and Directors of your National Sanitary Supply Association join with me in assuring you of another bigger and better National Convention and Trade Show in Chicago, March 22, 23, 24, 25, 1953, Conrad Hilton Hotel.

Each year your convention and trade show has grown in size and educational opportunities. This year exhibitors are going all out to bring you the newest in merchandise as well as advanced plans in better merchandising methods.

This year's convention will stress the "Clinic Approach" to trade show technique. Each exhibitor will have at the disposal of distributors, skilled engineers and technicians, interested primarily in showing the distributor how his product can best serve the consumers' cleaning, maintenance and sanitation problems. By visiting each exhibitor, distributors can be informed of the latest developments and thus be better qualified to serve the best interest of their customers.

Your National Sanitary Supply Association, "Institute of Sanitation and Modern Cleaning Methods" is now a reality. Its spontaneous acceptance and welcome acclaim by eminent public health authorities from Coast to Coast, proves again your Association's value, not only to its members, but to the betterment of public health throughout the Nation.

You can be proud of the work your Association is performing in your behalf and we look forward to greeting you again in Chicago.

Martin J. Peters
President,
National Sanitary Supply Association, Inc.

PUTS THE HEX ON HARSHNESS

NEW

GENTLE-TO-HANDS

LIQUID

DETERGENT

Pexsyn*

High Stable Sudsing!

EXTRA CLEANING POWER!

Now you can supply restaurants, hotels and homes with a detergent that's a dishwasher's dream... PEXSYN. This new liquid detergent leaves hands soft, smooth... whips the only serious obstacle to fast-growing liquid detergent sales... makes harsh detergents old-fashioned.

It took three years of field research and constant laboratory checking to develop this remarkable formulation.* Half-a-million gallons of PEXSYN were used in proving conclusively every PEXSYN claim. No other detergent offers PEXSYN's advantages.

Supply it for hand dishwashing, for car washing, for general cleaning. The high stable sudsing holds soil in suspension so it doesn't settle back as film but rinses clean, washes away.

Get PEXSYN for your customers. Watch sales repeat... profits grow.

*so much different . . . so much better it's patented.

For your own compounding, specify PEXSYN No. 593 —The 60% active concentrate you reduce with ordinary tap water for any desired concentration.

Get more details on this new way to increase your detergent sales. Mail coupon now.

PPC SINCE 1918

Peck's PRODUCTS COMPANY

610 E. CLARENCE, ST. LOUIS 15, MO.

PECK'S PRODUCTS COMPANY
610 E. Clarence, St. Louis 15, Mo.

Send lather performance tests and other details... also profit plan on PEXSYN.

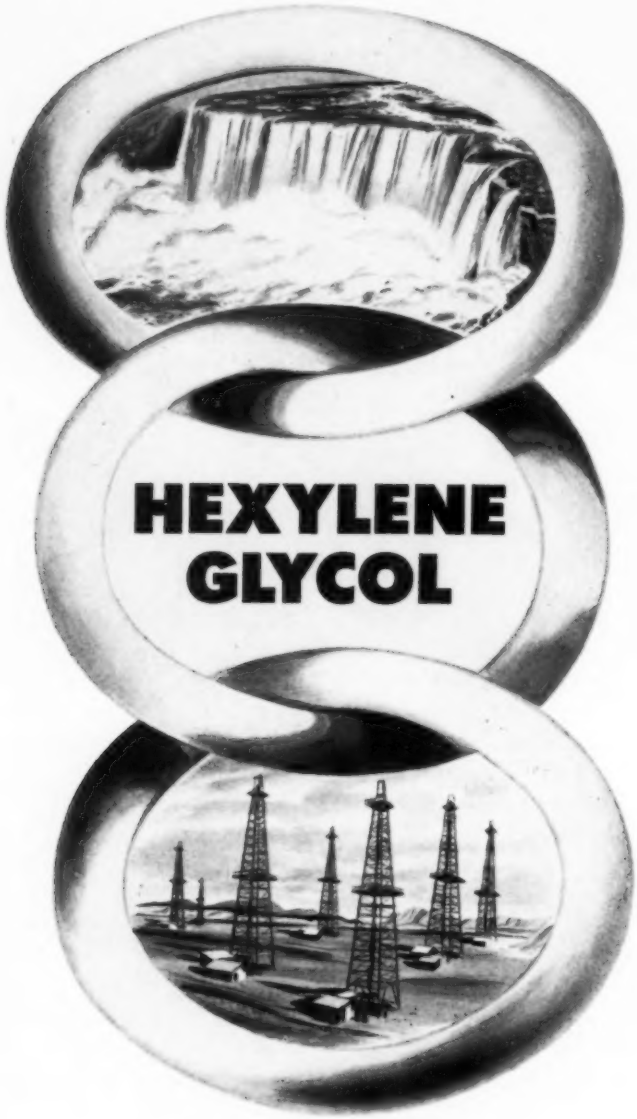
☐ Send samples.

Name.....

Firm.....

Street.....

City & Zone..... State.....



... for better coupling

IT WAS AN ADAGE with the ancients that oil and water never mix. But, long since, good coupling agents have been developed. Shell Chemical hexylene glycol, for example, effectively couples many such immiscible materials.

That's one reason why it's used in soluble cutting oils, automotive brake fluids and dry cleaning solutions . . . where *stability* is imperative.

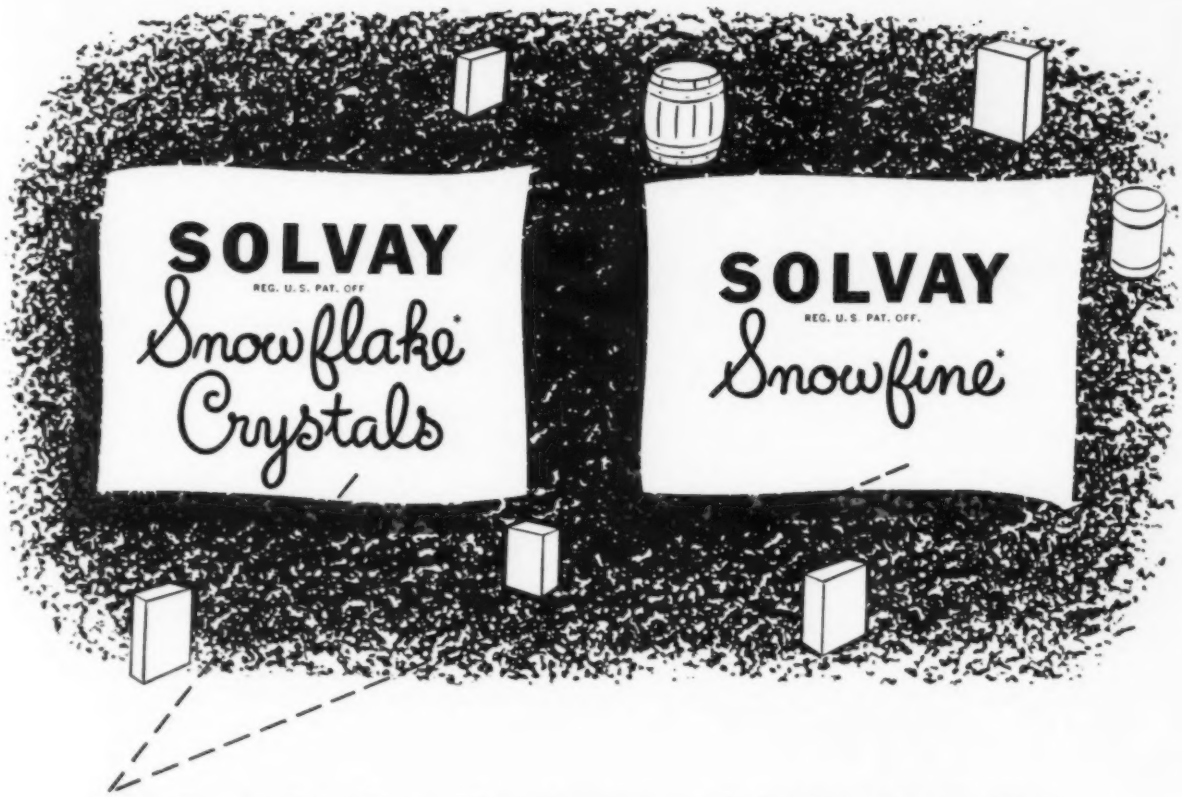
Hexylene glycol makes an excellent penetrant in duplicator fluids, vat-dye pastes and printing inks. It is also a superior dispersant and wetting agent in polishes, cleaners and many chemical specialties.

In these applications, hexylene glycol proves to be a low-cost agent, as compared with other commonly used couplers. Find out how hexylene glycol can help you. A letterhead request will bring you a 32-page booklet of technical data.

SHELL CHEMICAL CORPORATION

Chemical Partner of Industry and Agriculture

EASTERN DIVISION: 500 FIFTH AVENUE, NEW YORK 36
WESTERN DIVISION: 100 BUSH STREET, SAN FRANCISCO 6
Atlanta • Boston • Chicago • Cleveland • Detroit • Houston • Los Angeles • Newark • St. Louis
IN CANADA: Chemical Division, Shell Oil Company of Canada, Limited • Toronto • Montreal • Vancouver



the Superior Sesquicarbonate of Soda that will

REDUCE THE END COST OF YOUR COMPOUNDS

Compounders and Repackers will find that either of these quality Solvay products—Snowflake Crystals or Snowfine—is an ideal component of cleaning compounds. This true sesquicarbonate of soda is available in two grades, to fit the granulation of your product—crystals (Snowflake Crystals) and fines (Snowfine)—and offers you all these advantages:

- Beautiful appearance—snow-white, crystalline
- Mildness—low pH
- Quick-dissolving . . . non-caking . . . free-flowing
- Low Cost
- Ability to mix with and reduce end cost of other components

SOLVAY PROCESS DIVISION
ALLIED CHEMICAL & DYE CORPORATION
61 Broadway, New York 6, N. Y.

BRANCH SALES OFFICES:
Boston • Charlotte • Chicago • Cincinnati • Cleveland
Detroit • Houston • New Orleans • New York • Philadelphia
Pittsburgh • St. Louis • Syracuse

SOLVAY

*REG. U.S. PAT. OFF.

Soda Ash • Caustic Soda • Chlorine • Potassium Carbonate • Calcium Chloride • Caustic Potash • Sodium Bicarbonate • Ammonium Bicarbonate
Specialty Cleansers • Sodium Nitrite • Para-dichlorobenzene • Ortho-dichlorobenzene • Monochlorobenzene • Ammonium Chloride • Sesquicarbonate of Soda

Better Cleaning These Ways on All Kinds of Floors . . . with

WHIZ-O-SHINE

Low-Cost—Cleans *more* area for less money, takes less time, less work.

Easy-to-Use—Dissolves quickly and cleans well in hot or cold, hard or soft water.

No Rinsing—Leaves no film or slippery scum after general cleaning jobs.

Neutral Action, No Abrasives—Harmless to skin and hands . . . as safe to use as water!

Disinfectant Can Be Added—Add WHIZ PINE ODOR when needed.

Freshens Air—Mild pine, "clean" fragrance . . . no "hospital" odor.

General Purpose—Use it on woodwork, paint, varnish, metal, etc.

SOAP SCUM MAKES FLOORS DULL, DIRTY, DANGEROUS...

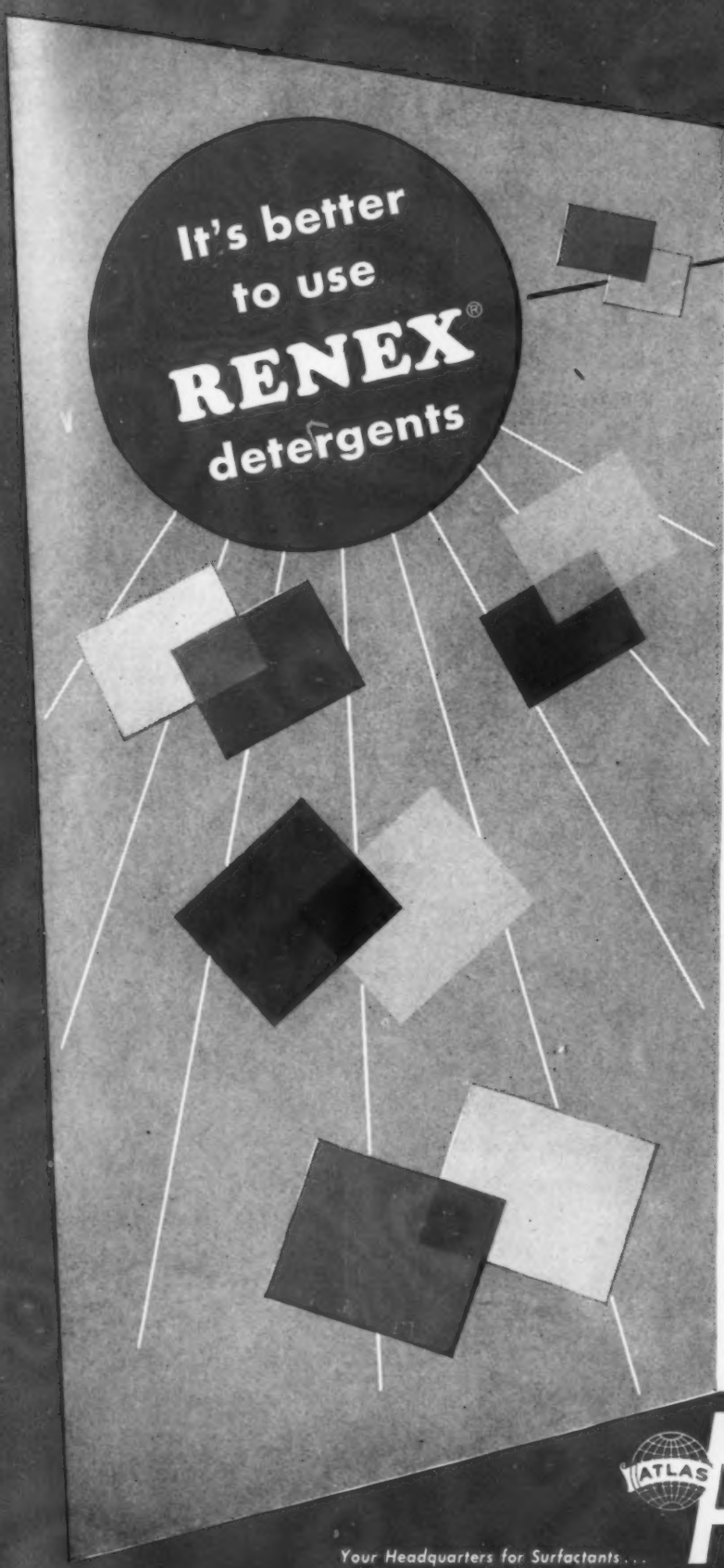
WHIZ-O-SHINE makes them CLEANER BRIGHTER, SAFER... at Less Cost!

WHIZ-O-SHINE dissolves dirty, slippery-when-wet soap scum . . . does away with the disadvantages of old cleaning materials, and gives you a method that works wonders on all flooring. In hard or soft, hot or cold water, the gentle, yet effective action of WHIZ-O-SHINE makes it ideal for all general-purpose cleaning. Brighten up, wake up those dark, scum-dingy floors with WHIZ-O-SHINE!

• Territories available for aggressive merchandisers in some areas. Write us today.

Whiz

Industrial-Aviation Division of the
R. M. HOLLINGSHEAD CORPORATION
LEADER IN MAINTENANCE CHEMICALS
840 Cooper St., Camden 2, N. J.
Canadian Offices: Toronto
Warehouses: Chicago, Dallas, San Francisco



because...

they blend readily in any formula

You can utilize the extra cleaning power of RENEX detergents in *any* detergent composition. These materials are compatible with practically every known ingredient. All of the RENEX family can be formulated to complete harmony with soap, anionic and cationic materials, and the carbonates, phosphates and silicates commonly used as alkaline builders. In addition, certain RENEX types can also be used in the presence of acids, and with organic solvents such as ketones, esters and aromatic hydrocarbons.

So Little Does So Much

The RENEX way is the economical way to gain high detergency. You produce a *better* cleaner—and save two ways. First, you use *less* RENEX. And second, RENEX detergents are economically priced.

It will pay you to investigate RENEX for any cleaning compounds you make—for home, automotive, industrial or military applications. Write or call Atlas today for samples and for a booklet giving typical RENEX formulas.

Your Headquarters for Surfactants...

INDUSTRIAL CHEMICALS DEPARTMENT

ATLAS POWDER COMPANY

WILMINGTON 99, DELAWARE

offices in principal cities

ATLAS POWDER COMPANY, CANADA, LTD.
BRANTFORD, CANADA

There's room for improvement . . .

There's room for improvement in odor in many soaps on the market today. The right perfume in a product means consumer preference. Call in the van Ameringen-Haebler perfume specialists to improve your soap and your sales with a persuasive perfume.

MANUFACTURERS AND CREATORS OF THE FINEST PERFUME MATERIALS

van ameringen · haebler, inc.

521 WEST 57th STREET NEW YORK 19, N. Y.

MOVING TOWARD NEW SOLUTIONS*

Working out new and varied solutions to old problems

is a fundamental part of Niagara's service to industry

NIALK® Caustic Potash

Unexcelled for both purity and quality, NIALK Caustic Potash is widely used by makers of the finest soaps in the development and application of new, more effective processing techniques.

Backed by constant research, produced with the strictest attention to quality control, this NIALK product—like every NIALK product—meets industry's most exacting specifications.

NIAGARA ALKALI COMPANY

60 East 42nd Street, New York 17, New York

* NIALK LIQUID CHLORINE NIALK CAUSTIC POTASH

NIALK CARBONATE OF POTASH NIALK PARADICHLOROBENZENE

NIALK CAUSTIC SODA NIALK TRICHLORethylene

NIAGATHAL® (TETRACHLORO PHTHALIC ANHYDRIDE)

potash
chemicals

You get consistent quality and uniformity of potash chemicals because *International* controls production all the way through mining, refining and manufacturing—from the ore in the mine bed to the finished product delivered to your plant. You can always depend on prompt delivery in the tonnages you need, of potash chemicals ordered from *International.*

Address all inquiries to

Industrial Sales Dept., Potash Division

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

General Offices: 20 North Wacker Drive, Chicago 6 • 61 Broadway, New York 6

Now! You may have good profits and enduring sales easier, because—

CARNAUBA IS HYDRAOXATED INTO SAFE FLOOR DRESSING

Precious carnauba

Brazilian natives harvest the carnauba palm tree's waxy fronds. Each palm frond, after it is dried and threshed, yields only a few precious ounces of the raw carnauba.

PERFORMANCE RECORD PART OF *BIG* SALES STORY

GLOSS (Unbuffed)	E	REMOVAL (Detergent scrubbing)	C
GLOSS (After buffing)	E	ANTI-SLIP	E
MAR RESISTANCE	E	EASE OF APPLICATION	E
WATER RESISTANCE	E	HEALING	E

E-Excellent C-Complete

B★SAFE

Hydraoxated Carnauba Floor Dressing

No silicas or abrasives added . . . the slip is hydraoxated out!

THE selling is easier when you feature, under your own private label, this self-lustre, hydraoxated carnauba floor dressing.

Think of the sales impact you command when you can say, "My floor dressing is extra safe . . . because the slip has been hydraoxated out of carnauba. In every kind of weather you enjoy beautiful, safe floors . . . even under wet shoes."

That is enough to gain a customer trial. But there is more, much, much more in our sales program to help you quickly attain enduring sales volume.

Write, wire or phone today. Your territory may still be open for distribution.

Listed anti-slip floor treatment material by Underwriters' Laboratories, Inc.

Chemical Service of Baltimore

HOWARD & WEST STREETS ★ BALTIMORE 30, MARYLAND

Undiluted . . .

WHO reads SOAP & SANITARY CHEMICALS? Obviously people who have an interest in soaps, cleansers, detergents, floor products, insecticides, deodorants, aerosols, and other sanitary chemicals and chemical specialties. If they didn't have an interest in these products, — their manufacture, packaging, distribution and use, — it's a lead pipe cinch that they would not read this magazine. Because, every issue concerns itself with these things and these thing **only.**

If you want a general smattering of all sorts of chemical stuff from acetic acid through paint, putty, and zinc picrate, we would suggest looking elsewhere. But, if you want 70 to 80 pages of information in every issue on soaps, chemical specialties, **et al.** SOAP & SANITARY CHEMICALS alone gives you this. No other publication gives this field anything except occasional spotty attention, — an item here or there, and sometimes none at all.

Every bit of reading matter in SOAP & SANITARY CHEMICALS is concentrated right in its own field, — all of close and important interest. No wading through page after page after page to pick out an item or two worth reading. No dilution of reading matter with a great bulk of material not even of remote interest.

This is why SOAP & SANITARY CHEMICALS can do a job of genuine advertising coverage **in its own field.** Not just a dab of circulation here and a dab there, but real concentration of readers in its specialized market. All of which spells out deep and continuous market penetration, and top advertising effectiveness.

SOAP & SANITARY CHEMICALS

Published Monthly by

MAC NAIR-DORLAND COMPANY

254 West 31st Street, New York 1

made with Du Pont SODIUM PERBORATE are:

EASY TO MAKE–

No need for special equipment or big capital investment.

EASY TO SELL–

Big market in home laundries and launderettes.

Check These Manufacturing and Merchandising Advantages

- Low raw material cost
- Easy to package
- Minimum "dead weight" in packaging and shipping
- No danger of breakage or costly spills
- Long storage life
- Odorless
- Safe for all washable fabrics

ADD THIS PROFITABLE ITEM TO YOUR LINE—TODAY!

Now—you can supply the rapidly expanding automatic home laundry market with an effective safe powder bleach! When properly formulated with Du Pont sodium perborate, these odorless bleaches can be used on all washable fabrics—natural, synthetic, white, colored or printed—without harming color or fabric. *No other type bleach offers such versatility!*

Let Du Pont help you develop suitable, inexpensive formulations. We have the experience and technical facilities that can be useful to you in adding this profitable item to your line. And we will be glad to show you the results of surveys which indicate why people want—and buy—safe powder bleaches; give you helpful facts about this fast-growing market. Don't delay—get all the details. Just fill out and send in the coupon below.

Mail this coupon now

DU PONT
SODIUM PERBORATE
for SAFE POWDER BLEACHES

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department
Room 3082A, Du Pont Building
Wilmington 98, Delaware

Please supply me with more information about Du Pont sodium perborate and its use in making powder bleaches.

*Name*_____

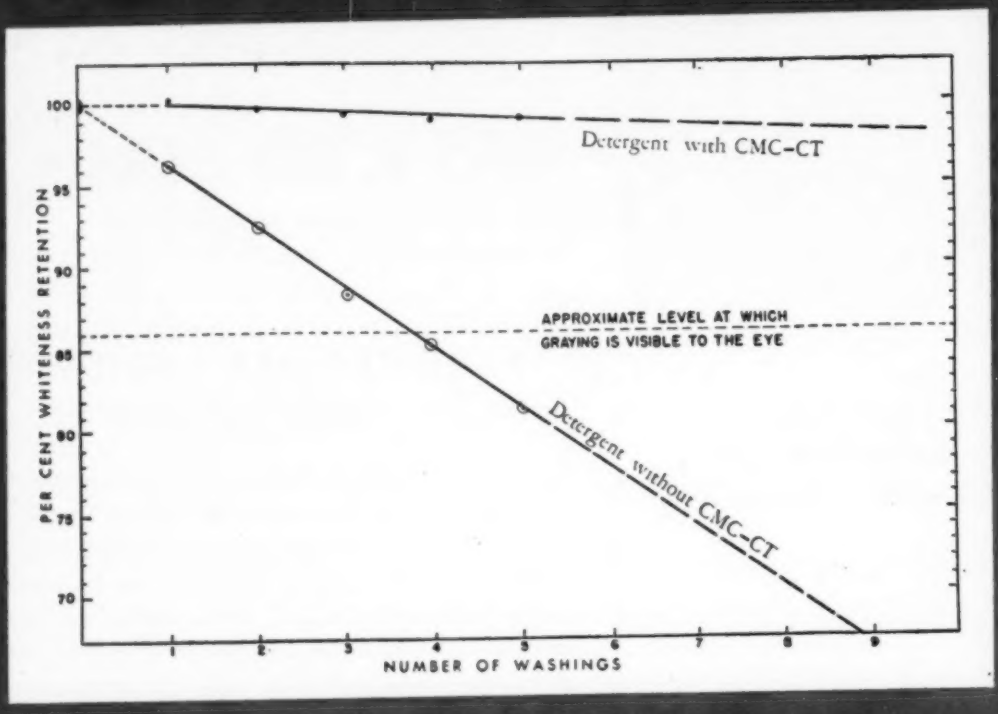
*Position*_____

*Firm*_____

*Address*_____

*City*_____ *State*_____

You Can See the Difference When You Use Hercules® CMC-CT



A little CMC-CT makes a lot of difference in keeping clothes white, even after repeated launderings. The chart above is typical of the excellent results obtained in whiteness retention tests with synthetic detergents that contain CMC-CT.

About 1% CMC-CT, based on total formulation, greatly improves the whiteness retention effectiveness of built high and low titer soaps as well as synthetic detergents. CMC-CT also improves detergency efficiency.

See for yourself what CMC-CT can do for you. Send for a copy of the folder "CMC-CT for Clean White Laundry".

Cellulose Products Department
HERCULES POWDER COMPANY
961 Market Street, Wilmington 99, Del.

HERCULES® CMC-CT

CM-3-2

. . . in brief

as the editor sees it . . .

BARRIERS . . . One by one, our states through restrictive legislation make it more difficult for any manufacturer or distributor to carry on an interstate business. A new Louisiana Dept. of Agriculture regulation is the latest shining example in this category. Since January first of this year, a shipper of insecticides, disinfectants, rodenticides and the like into Louisiana must send to the state chemist copies in duplicate of invoices covering each shipment. Prices may be omitted.

Some shippers unaware of this regulation recently have received reminders that they must comply with it. Its inconvenience is quite apparent—another nuisance detail added to the already existing long list of "gimmicks" required to do business in all states—one more addition to the cost of doing an interstate business. One more case of regulation *ad absurdum!* Is the list of these new state requirements going to grow forever?

●

FATTY ACIDS . . . The next decade is likely to see a broad expansion in the industrial application of fatty acids and their derivatives. At its annual meeting last month, the Fatty Acid Division of the AASGP, known otherwise as the Soap Association, discussed tentative plans for a program of cooperative research. If it is half as successful as glycerine research conducted by AASGP over the past 25 years, a greatly widened future use of fatty acids may be anticipated.

The fatty acid manufacturers plan to undertake a research job today which we feel should have been started years ago by the basic oil and fat producers. To some extent, as we have mentioned before, lack of such research in past years may account for the present plight of the producers of tallow and grease. From any research by the fatty acid people, every basic fat producer will benefit. If it opens new markets for fatty acids and their derivatives, it likewise must open new markets for fats and oils.

In the currently depressed tallow and grease situation, only a long-range plan holds out a permanent solution of fat producers' troubles. A fatty acid research program could be the main cog in the wheel. Maybe the day is not too far distant when the great bulk of our heavy production of inedible fats will go to market as fatty acids and their potentially large family of derivatives. Vive la fatty acid research program!

●

PRIZE CONTESTS . . . Apparently prize contests have their old pros, just like big-league baseball, hockey, et al. It would seem that there are people who do little else but enter contests run by makers of everything from crunchy-wunchies to the new detergent which makes your wash so sparkling white. According to some of the people who run these contests, large numbers of entrants are repeaters who take a pot shot at prizes everywhere no matter who makes the offer. The proportion of new people who will bother to write a jingle or "finish this sentence in ten words" is relatively small, they tell us.

If all this tale of "professionalism" be true, we wonder if in this sinister age somebody may not try to get to a judge and put on the fix, just like a college basketball game. We know that a lot of people think these contests are won by friends of friends of employes, or are fixed, and that they don't have a chance to win.

But, to be more practical, are these contests being run for a small segment of possible consumers? Do pros and repeaters make up most of the entrants? Being an old-fashioned magazine

and newspaper advertising space man ourself, we wonder more than ever about the people who win gold-plated snow shovels for writing just ten short words—and how many new customers these prize contests turn up.

●

DDT . . . When we read recently that Dr. Edward F. Knipling of the Department of Agriculture estimated that DDT had saved five million human lives and prevented one hundred million cases of sickness, we could not fail to remember the screaming newspaper headlines of a couple of years ago, "DDT is slowly poisoning the people. Virus epidemics are in fact the insidious results of DDT poisoning."

The recent estimate by Knipling appeared as a small news item in an inconspicuous place in the papers. When the newspapers first exploited the sensational statements of a publicity-seeking physician warning the world against DDT, the insecticide was worthy of front-page treatment. The usual wolf-pack of congressmen and other officials took up the cry against DDT. The opportunity to make the news they could not ignore, and in those days, DDT was big news. It was poisoning America. The great public men rushed to save the people from a horrible fate—always in the papers. The stampede to make statements for publication was overwhelming. Sane men who knew the truth and tried to speak it, were brushed aside.

Now, a couple of years later, Knipling, outstanding government scientist and authority on DDT, makes a statement of profound significance to the health of the world. In traditional fashion, it is buried by the newspapers. The truth? Who has time to bother with the truth? How many papers does the truth sell?

●

LABELS . . . Makers of various and sundry household products, soaps, detergents, insecticides, floor waxes, receive thousands of letters every month from users of their products, the great majority of which are complaints. One large soaper receives letters, mostly complaints, at the rate of thirty thousand per annum. Except where these emanate from obvious crackpots, they are checked into. Each complaint is analyzed to determine reasons why the product failed to satisfy the customer. The firm takes a serious view of written complaints, believing that only a small percentage of dissatisfied users will take the trouble to write a letter.

Analysis of complaints where possible from the facts given shows a preponderance of "failure to follow directions." Most complainers either fail to read directions or misinterpret them. However, our observation of many label directions indicates that they are more difficult to read than not, and often easily misinterpreted. Too many labels are no help in avoiding misuse of a product. Their make-up and wording show relatively little thought and less imagination. Thousands are spent to introduce and sell a product, to get people to buy it, but time and attention spent to keep it sold via a sensible label must be just peanuts.

Poor labeling conceivably could bear a definite relationship to consumer complaints, all other factors being equal. Add the known aversion of most Americans to read any label and we may find a further significant relationship in the complaint department. To what extent complaints begin with the label, we would like to know.

●

SHIPPING COSTS . . . When trucking and container cost more than the product being shipped, something would seem to be rotten in Denmark. But this is the situation being faced right now by producers and distributors of lower-cost industrial soap powders and detergents. Though oils, greases, foots, soap stock are very cheap, the cost of delivering a hundred pounds of soap powder to a customer by truck, for example, a hundred or two hundred miles away is greater than the product cost.

Buyers, noting lower raw materials costs, expect proportionately lower prices for soaps and cleansers. We fear that they are doomed to disappointment. Strange as it may seem, raw material costs have become almost a negligible factor in over-all delivered costs in recent months. As a consequence, the area in which each manufacturer can operate becomes smaller and smaller, and the complaints of buyers become louder and louder. Fast, modern freight transportation is a wonderful thing—if you can afford it!

as the reader sees it . . .

Bacteriostat Reference

Editor:

In the article on a "New Bacteriostat for Soap, An Evaluation of Biological and Chemical Properties of 'Actamer'(R), 2,2′ Thiobis (4,6-dichlorophenol)" by R. S. Shumard, D. J. Beaver and M. C. Hunter which appeared in the January 1953 issue of *Soap and Sanitary Chemicals*, it was stated that certain of the biological characteristics of this bisphenol have been reported on and six references, mostly from the German literature, were cited.

For the purpose of having all the published literature on this compound made available to interested parties, we advise that one of the most pertinent references is U. S. Patent No. 2,353,735 (July 19, 1941) on "Germicidal Soap," issued to E. C. Kunz, M. Luthy and W. S. Gump. This patent gives data on the antibacterial activity of a soap containing 2% of 2,2′ thiobis (4,6-dichlorophenol) against Micrococcus pyogenes var. aureus which is, as Shumard and his co-authors state, "representative of the most prevalent micro-organism of the resident skin flora."

Although certain thio bisphenols will render soap antiseptic, none was found to possess chemical and biological properties superior to those of "G-11."

William S. Gump
Sindar Corp.
New York

We're a Must!

Editor:

We have a complete set of *Soap* magazines for every year since 1936. We keep them in order for ready reference. Now, by some unfortunate circumstance our copy of November, 1952 *Soap* is missing. We cannot afford the loss of this valuable copy from our files.

How we could carry on each day looking at the bookcase knowing November, 1952 copy of *Soap* was not there would be too terrible to endure, especially with all the other years complete.

Please send us this copy and advise us how much our carelessness will set us back and we will try and reimburse you for your trouble.

Soap is a "must," as they say, for us in this business.

D. W. MacCullum
MacCullum Manufacturing Co
Toronto, Ont., Canada

* * *

Fortunately, it was the November issue Mr. McCullum needed. Now, if it had been the December issue, although we printed several hundred extra copies, our supply of that number is completely exhausted.—Ed.

Breaking his Heart!

Editor:

Please stop, you're breaking my heart! Your January 1953 issue devoted to licking the wounds of the "old sows" (the three major soapers) who have eaten up their "little pigs" (small soapers and renderers), compels me to refer to your August, 1950, issue, page 47.

As then, the issue still is—monopolies or free enterprise. Don't worry over the major soapers, who spend annually in advertising $120,000,000 (tax exempt), but rather over the little fellows they have forced out of business, their families and employes and over what would happen should every industry be thus controlled by so few.

It looks like the "Big Three" will no longer be able to take a *nolle contendere* judgment without being branded guilty, pay a small fine and continue their ruthless ways and still use a lot of scared, broke merchants and unsuspecting "hangers-on" for "window dressers."

It's a long road, but—oh, no, I must not say that!

E. O. Gillam
Gillam Soap Works,
Fort Worth, Tex.

* * *

The item on page 47, August, 1950, issue of SOAP & SANITARY CHEMICALS to which Mr. Gillam refers was a letter written by Mr. Gillam to us which covered almost a full page in small type and is too long to

(*Turn to Page* 181)

"This building will house chiefly the coupon redemption staff!"

At the 26th AASGP meeting left to right: Roy W. Peet, association secretary and manager; Jean Wade Rindlaub, BBDO vice-president, and luncheon speaker; James A. Reilly, vice-president, Colgate-Palmolive-Peet Co., and convention chairman; George A. Wrisley, vice-president and general manager, Allen B. Wrisley Co., Chicago, reelected president of the Soap Association.

Soap Assn. Meets, Reelects

AN improved outlook for raw materials, and prospects for continued good business during the coming year highlighted the brighter side of the picture during the 26th annual convention of the Association of American Soap & Glycerine Producers. On the darker side, the suit of the Justice Department involving the Soap Association and the three major soap companies, was uppermost in the minds of many attending the three day affair, held Jan. 27-29, at the Waldorf-Astoria Hotel, New York. The possibility of legislation aimed at the industry and its products was also considered during the meeting, although such action was regarded as less serious than the anti-trust suit.

The continued growth of sales of synthetic detergents at the expense of soaps was brought out in a review of household soap sales during the past year. Other phases of synthetic detergents and their use for new applications were reported on.

The divisional meetings, led off by the first day's gathering of the Fatty Acid Division, for which twice as many were present for lunch as had made reservations, were highlighted by papers on uses of fatty acids; glycerine, and industrial soaps.

Association business conducted at the meeting included the election of officers, directors and divisional chairmen. George A. Wrisley, vice-president and general manager of Allen B. Wrisley Co., Chicago, was reelected president, marking the fourth time he has been chosen to head the association. He also served as AASGP president in 1947 and 1948.

Other officers elected include: E. H. Little, president of Colgate-Palmolive-Peet Co., Jersey City, N. J., vice-president for the east; E. W. Wilson, Armour & Co., Chicago, vice-president for the mid-west; Albert Haas, Newell-Gutradt Co., San Francisco, vice-president for the far west. Nils S. Dahl of John T. Stanley Co., New York, continues as treasurer and M. A. MacManus of Lever Brothers Co., New York, was elected assistant treasurer. Roy W. Peet continues as association manager and secretary.

Other directors elected at the meeting are: Jervis J. Babb of Lever Brothers Co., New York; C. S. Campbell of J. B. Williams Co., Glastonbury, Conn.; R. S. Carmel of H. Kohnstamm & Co., New York; Melvin Fuld, Fuld Brothers, Inc., Baltimore; A. B. Hersberger, Atlantic Refining Co., Philadelphia; Neil McElroy, Procter & Gamble Co.; E. A. Moss, Swift & Co., Chicago; E. B. Osborne, Economics Laboratory, St. Paul; A. W. Schubert, Emery Industries, Inc., Cincinnati; C. L. Weirich, C. B. Dolge Co., Westport, Conn.

Divisional chairmen chosen at the meeting include: S. D. Patton of Armour & Co., Chicago, Fatty Acid; R. S. Carmel, H. Kohnstamm & Co., New York, Industrial Soap; C. L. Weirich, C. B. Dolge Co., Westport, Conn., Specialty Soap; and J. A. Sloan, Colgate - Palmolive - Peet Co., Jersey City, N. J., Glycerine.

Attendance at this year's meeting set an all-time high with 1050 registrations. Group luncheons and the banquet were well attended. The luncheon Jan. 28 drew 455; the following day's 418, and the Fatty Acid luncheon on Jan. 27, was attended by 168, nearly double the number for which reservations had been made.

The three day meeting of the AASGP began with an all-day session of the Fatty Acid Division, on Jan. 27. The division's chairman, A. W. Schubert of Emery Industries, Inc., Cincinnati, in his review of 1952 and discussion of the future said:

"During the 14-month period for which our association has been reporting monthly statistics, the production rate for the industry has been averaging close to 375 million pounds of fatty acids per year. Shipments, including those moving from one producer to another, amounted to about 332 million pounds on an annual basis.

"There has been considerable variability from month to month, however, with shipments ranging from less than 22 to more than 32 million pounds. Moreover, throughout most of the period, the trend was slightly downward. This was reversed in October, when domestic shipments reached a 14-month peak. Although declining 13 per cent in November, shipments that month were exceeded only in October of both years and in November, 1951.

"Exports were heavy in the final quarter of 1951, but then trended down until March, 1952. Subsequent volume has moved sideways to slightly higher.

Wrisley

"During the same 14-month period and up to the present time, the price of prime tallow has declined from 9⅝ cents to 4½ cents per pound. Among vegetable materials, acidulated cottonseed soapstock declined from 4.25 cents per pound in October, 1951, to 3.25 cents per pound in January, 1953. Acidulated soya soapstock sold for 6.25 cents in October, 1951, compared with 4.75 cents per pound in January, 1953.

"Crude coconut oil prices decreased consistently between October, 1951, and April, 1952, but their subsequent trend has been upward. By mid-January of this year, the price was more than double the April low."

In discussing the activities of the Fatty Acid Division, Mr. Schubert reviewed the progress of the division. He pointed out that the group is working on eight projects, including those of research on products and processes and standardization and simplification.

The first speaker of the afternoon session, Raymond H. Ewell, manager, Chemical Economics Service, Stanford Research Institute, discussed the outlook for fatty acid raw materials. He stated that:

"A review of the economics of fatty acid raw materials quickly shows that tallow and grease comprise the massive heart of the problem. Lesser roles are played by vegetable oil foots, coconut oil, fish oils, and fatty acid stocks, but tallow and grease are the 'big guns.'

"Tallow has been in great oversupply in the United States during the past few years with a consequent low price, except for a period following the outbreak of the Korean war. In 1952, U. S. production of tallow and grease was 2.3 billion pounds while U. S. consumption was only 1.6 billion pounds, leaving a domestic surplus of over 700 million pounds. This surplus was exported to Europe, Japan, Latin America, and other fat-deficit areas.

"Analysis of the various factors affecting the production and consumption of tallow and grease in the United States leads to the conclusion that these fats will probably be in greater and greater oversupply with each succeeding year, so that by 1957 there may be a surplus of around 1.2 billion pounds.

"The decline in consumption of tallow and grease since 1947 has been largely a result of the displacement of soap by synthetic detergents. Soap production declined from 3.66 billion pounds in 1947 to 2.26 billion pounds in 1952, with a consequent decline in tallow and grease used in soapmaking from 1.55 billion pounds to 1.13 billion pounds. In the same period, synthetic detergents increased from 0.4 billion pounds to 1.78 billion pounds. The other markets for tallow and grease — fat-splitting, lubricants and miscellaneous minor uses—increased moderately from 1947 to 1952, but much less than the decline in consumption for soap. A notable development of the past three years has been the development and marketing of synthetic detergents based on tallow and grease. In 1952 it is estimated that 88 million pounds of tallow and grease were consumed in this use, equivalent to over 500 million pounds of finished detergent.

"Fat-splitting, the second biggest consumer of tallow and grease, is assumed to increase its consumption of these fats from 212 million pounds in 1952 to 280 million pounds in 1957. This growth is based on the historical growth rate of fatty acids of about 4 per cent per year. Lubricants are assumed to remain level at 60 million pounds per year of tallow and grease. All other uses are assumed to remain level at about 100 million pounds per year.

"The conclusion that prime tallow will remain in the range of 4-8 cents per lb. range for the next five years appears to be at variance with the past history of tallow. In the past five years, prime tallow has varied from 4½ to 27½ per lb. Wide variations of this magnitude have been characteristic of tallow, as well as all other fats and oils, for the past 100 years. However, we are now in a new era of tallow economics as a result of the development of synthetic detergents combined with steadily increasing production of tallow. Formerly, tallow prices were quite variable because the supply was limited and people had to have soap. Now people don't have to have soap; they can have synthetic detergents.

"How can new large uses be developed for tallow and grease and for fatty acids in general? This is a question of equal interest to both fat-splitters and tallow producers—even though the two groups are usually on opposite sides of the economic fence. The answer is research—research on a much larger scale than at present. The annual value of all tallow and grease produced in the United States is about $120 million and the annual value of all fatty acids produced is about $60 million. On the basis of 3 per cent of sales, which is standard in the chemical industry, the tallow, grease and fatty acid industries should be putting at least $5.4 million per year into research.

"The big hope for increased utilization of tallow lies in new uses for fatty acids. Soap is on a down-trend which may never turn upward again, at least not for many years. Synthetic de-

Left to right: W. W. Bray of Procter & Gamble Co., Cincinnati, and R. S. Heller of Olin Cellophane Div., Ecusta Paper Corp., during Glycerine Division meeting. Dr. Raymond H. Ewell, manager, Chemical Economics Service, Stanford Research Institute, and A. W. Schubert, vice-president, Emery Industries.

Top photo, l. to r.: Paul Jones, National Cotton Council; R. S. Carmel, H. Kohnstamm & Co., and J. B. Quig, E. I. du Pont de Nemours & Co.

Bottom picture: Sewall Andrews, General Mills; Dr. Wagner of Witco Chemical Co.; L. F. Church, Emery Industries, Inc.; Oliver Burke, Burke Research Co.

tergents will probably use increasing amounts of tallow and grease, but even if all synthetic detergents were made from these fats, this would take only 400-500 million pounds in 1957. Lubricants and most of the minor uses have little or no growth potential. That leaves fatty acids as the only hope for the future for greatly increased consumption of tallow and grease.

"Research on the utilization of fatty acids should aim at developing products in the 'big-time' synthetic organic chemicals, such as plastics, fibers, rubber, plasticizers, pesticides, lubricating oil additives, lubricants, waxes, solvents, adhesives, and others. These products run into many billions of pounds per year, with a value of many billions of dollars. They constitute an almost unlimited market for organic raw materials. Tallow at 5 cents per lb. is certainly a potential raw material for making such products, and enough research would undoubtedly develop the required technology."

In discussing the "Use of Fatty Acids in Rubber," Oliver W. Burke, Jr., president of Burke Research Co., Detroit, pointed out that "recently it has been found that fatty acids and rosin, including chemically treated rosin, could be substituted for the petroleum oils used to extend rubber. The use of these fats has improved the physical properties of the rubber and has resulted in tires of improved tread wear."

The use of fatty acids in metallic soap manufacture was reviewed by E. F. Wagner of Witco Chemical Co., New York, who said that "as the most important class of heavy metal soaps made from fatty acids, the stearates enjoy a wide diversity of end use applications. However, this very fact results in a highly specialized business wherein the stearates manufacturer must (a) supply a large number of different grades, (b) must control his production to a large extent by performance tests, and (c) must constantly provide technical service assistance and product development."

Mr. Wagner also stated that "the specific fatty acids used have a great influence upon properties obtained in the finished stearates. This necessitates purchase of many different grades of fatty acids—and necessitates greater emphasis on uniformity of shipment to shipment for each grade received."

"Stearates usage appears to have levelled off and future sales expansion will result from the development of new uses for stearates and from the normal population increase. Certain inherent limitations of stearic acid soaps have directed future developments toward the usage of combinations of fatty acids of different chain lengths, and toward the use of other acids such as hydroxystearic, ricinoleic, naphthenic, tall oil and octoic."

Ways in which reports of the Association on fatty acid marketing data can be used were described in the concluding talk, "Blueprinting Fatty Acid Markets" by Lee F. Church of Emery Industries, Inc., Cincinnati. Several illustrations of the possible use of other market information, alone or in combination with association market data, were given by Mr. Church.

In this address of welcome and review of the year as president of the Soap Association, George A. Wrisley gave the preliminary figures on soap sales during 1952. Although the totals for both soaps and synthetic detergents were greater in 1952 than in 1951, sales of soap were lower last year than in 1951, whereas 1952 sales of synthetic detergents topped those of the previous year. Sales of non-liquid soaps at plant totaled 1,825,595,000 pounds in 1952, as against 2,015,380,000 pounds in the previous year, according to the incomplete figure given by Mr. Wrisley. Synthetic detergent sales at plant in 1952 were 1,520,257,000 pounds, in increase over the 1951 figures of 1,255,246,000 pounds. Liquid soap sales were 5,705,000 gallons in 1952; 5,268,000 gallons in 1951.

The percentage of the total non-liquid market represented by detergents in 1952 was 44 per cent, as against 37 per cent in 1951.

In his talk, Mr. Wrisley also referred to the suit of the Department of Justice against the three major soap companies and the soap association. He said that "as to the outcome of this suit, only time can tell, but I feel entitled to say that we face the future outcome of this suit with confidence and faith in our association and its program."

In review sales of household soaps and synthetic detergents during 1952, Philip Stomberg of A. C. Nielsen Co., Chicago, reported that:

"Food store sales reached new highs in 1952, both in dollars and tonnage. An increase in food prices that began in 1950 terminated in the fall of 1952. At present, there is an indication that food prices will be lower in 1953 than in 1952. Under the circumstances, food store dollar sales probably will show a smaller gain in 1953 than they

did in 1952 although it seems likely that tonnage sales will continue to expand along with the growth in population and consumer income.

"Food store sales of soaps and synthetic detergents combined also reached new highs in 1952 on both a tonnage and dollar basis. The increase in dollar sales was substantially less than tonnage reflecting lower consumer prices. Synthetic detergents continued to gain at the expense of soaps."

In attempting to predict the "Economic Outlook for 1953," the Hon. Paul Douglas, U. S. Senator from Illinois, stated that "with intelligence there is no good reason why we should have a depression." He cautioned, however, that "we are now in our 13th year of prosperity and even if we disregard war years, it is now 7½ years since the end of World War II. In the past, periods of prosperity have almost never lasted as long as this."

At the luncheon, Jan. 28, J. W. Bodman of Lever Brothers Co., New York, presented the glycerine awards to the Rev. Basile J. Luyer, director of the Institute of Biophysics, St. Louis University, and Dr. Ivan W. Brown, Jr., assistant professor of surgery, Duke University School of Medicine, as split first place award winners. The second award went to Dr. Raymond Reiser and Dr. Hermann Schlenk, assistant professors, department of biochemistry and nutrition, Texas A. & M. College, and Reuben O. Feuge & Associates of the southern Regional Research Laboratory, U.S.D.A., New Orleans, received third award.

In discussing soap buying habits, Jean Wade Rindlaub, vice-president of Batten, Barton, Durstine & Osborn, Inc., New York, pointed out that in a survey she conducted it was found that women washed their hands more frequently than would be expected. In many cases they wash their hands 10 to 15 times a day. Mrs. Rindlaub spoke at the luncheon, Jan. 28. She also commented on the variety of soap and detergent products used by the housewife.

Simultaneous sessions of the Glycerine Division and the Specialty Soap Division, highlighted the afternoon of Jan. 28. The Glycerine Division meeting opened with a panel discussion of ways and means of improving the yield and quality of crude glycerine. This was participated in by members of the glycerine research committee. Also featured at this meeting was a paper dealing with the use of glycerine in cellophane by Ralph S. Heller of Olin Cellophane Div., Ecusta Paper Corp. Glycerine, he pointed out, acts as a softener in cellophane to make the film pliable and durable. Although glycerine has been used from the beginning as a cellophane softener, continued research has been carried out to find other softeners. Such research is partly prompted by lack of stability of the glycerine market, he said.

"The market for glycerine softened cellophane is reasonably stable and should grow in proportion to the growth of the total cellophane market," Mr. Heller concluded.

Reviews of glycerine research and glycerine advertising and publicity preceded a report on the glycerine situation today and the outlook for the immediate future by E. Scott Pattison, manager of the Fatty Acid and Glycerine Division of the Soap Association. Mr. Pattison's address begins on page 50 of this issue.

"Department Store Housekeeping," the subject of the first paper given at the Specialty Soap Division of AASGP, consisted of a description of cleaning and maintenance practices of the department stores operated by Lord & Taylor, New York. Daniel H. Larlee, who is plant manager for Lord & Taylor, explained how practices vary between the main store on Fifth Avenue in New York and those in other cities and suburban areas. His company purchases its housekeeping supplies through a purchasing agent upon the recommendation of the housekeeping supervisor with the approval of the plant manager. All Lord & Taylor housekeeping supplies such as soap powders in barrels, liquid soap and waxes in drums, are bought in bulk, Mr. Larlee stated.

Miss Alta La Belle, consultant to the Veterans Administration on problems of housekeeping in hospitals, explained how the requirements of such institutions differ from those of hotels, etc. She described a training program set up for VA maintenance personnel, which features the blown-up comic book approach.

The requirements of the dairy industry for soap products were described in a paper by H. G. Harding of National Dairy Research Laboratories, Inc., Oakdale, N. Y. He explained that the use of soap in the dairy industry is primarily for the cleaning of waxed floors and painted surfaces, in lavatories, and for conveyor lubrication.

The final day of the meeting opened with a session devoted to a discussion of the raw materials and packaging outlook. Speaking on fats and oils, John B. Gordon of the Bureau of Raw Materials stated that production of these materials in the crop year which began Oct. 1, 1952, will be around 12.1 billion pounds, which is slightly under that of the two previous crop years. Production of soap making fats and oils will be about the same as in the previous year, possibly a few million pounds less. Inedible tallow

(*Turn to Page* 153)

At the Quartermaster exhibit at the convention, left to right: Dr. Craig White, Research and Development Office, Quartermaster General; James S. MacIntosh, N. Y. QM procurement agency; James A. Reilly, C-P-P; Major J. P. Anninos, N. Y. QM procurement agency; Eugene A. Moss, Swift & Co.; W. Straub, president, W. F. Straub Co.

Nonionics—

The All-Surface Cleaners

By Manuel N. Fineman*

Research Laboratories, Rohm and Haas Company, Bridesburg, Pa.

Introduction

IN studying detergency most investigators have attempted, insofar as possible, to simulate in the laboratory conditions of actual use; and they have designed their test procedures acordingly. As a result there are innumerable test methods, test soils, and criteria for judging performance; and none of these are accepted as standard throughout the industry.

One interesting exception is the windshield - wiper test which has achieved the distinction of being written into a Federal Specification.** This test involves removal of a standard soil mixture from painted metal panels by light abrasive action provided by a windshield-wiper type of apparatus, and determination of residual soil by photoelectric means. However, it has many limitations. By its very nature the test cannot be conducted at the elevated temperatures which more closely approximate conditions of use of the detergents; preparation of painted panels is very critical; data obtained are often meaningless since they do not correlate with field experience; and reproducibility of these data is erratic. Finally the procedure is not readily adaptable to study of the variables which contributes to the detergency process such as emulsification, soil suspension, and soil redeposition.

A number of more satisfactory test methods have been described in the literature (1). Some of these are static; others, dynamic. Some use water break to estimate residual soil; others, a fluorescent dye or a radioactive tracer. But, upon examination, none were found adequate for our needs.

We sought a simple test which would be sufficiently flexible so as to permit a study of the variables in the detergency process; and would also yield meaningful results which could be correlated with field experience. By modification of published procedures we have developed a new test method which is not only rapid, simple and meaningful, but as will be shown, has given us a clearer insight into the mechanism of the detergency process and permitted us to observe interactions between substrate, soil and surfactant which might otherwise have escaped detection.

Dynamic Detergency Test

THE dynamic detergency test procedure described here involves agitation of clean and soiled substrates in detergent solutions in a standard Launderometer; and, in a single operation, permits rating of detersive efficiency, soil redeposition and soil suspending action of the detergent at any temperature. Moreover it may be used not only to evaluate detergents, but also to examine removal of different soil compositions from a wide variety of surfaces.

Metal washers having an outside diameter of one inch, or other substrates having dimensions approximating one inch by one inch by 1/16 inch, were cleaned with a light abrasive type of cleanser, dried, and soiled with an oily-carbon paste made by mixing one part of fine carbon black (Philblack O) with two parts of aliphatic mineral oil (Atreol 9). The paste was applied by spatula, as uniformly as possible, to the substrates and to the inside surface of the glass caps of the Launderometer jars. Soil averaged about 0.10 gm on the substrates and 0.13 gm on the glass caps. Detergent solutions of varying concentration were made up to a volume of 200 ml each and preheated in the jars to the required temperature—usually 140°F. Two soiled and two clean substrates were added to the jars which were then sealed with the soiled glass caps.

The jars were mounted in the Launderometer, set at the required temperature, and rotated at 42 r.p.m. for 10 minutes. Upon completion of the wash cycle, the detergent solutions were separated from the substrates for subsequent determination of optical density. The substrates and glass caps

Table I.

Detersive Efficiency of Triton X-100* on Stainless Steel

Detergent	Visual Ratings				Summary for Stainless Steel			
Concn	Glass		Stainless Steel		Redeposition	Soil	Overall	Optical
%	Clean	Soiled	Clean	Soiled	Prevention	Removal	Efficiency	Densities
1.0	5	5	5 5	5 5	99%	79%	89%	66
0.3	5	4+	5 5	5 5				28
0.1	5	4+	5 5	4+ 4+				24
0.03	5	3+	5 4+	4+ 3+				7
0.01	5	5	5 5	1 1+				1

* Registered trade mark Rohm & Haas Co.

* Presented at 39th annual meeting of Chemical Specialties Manufacturers Association, New York, December 8th, 1952.

** P-C-431.

Figure 1. Visual Ratings of Substrates

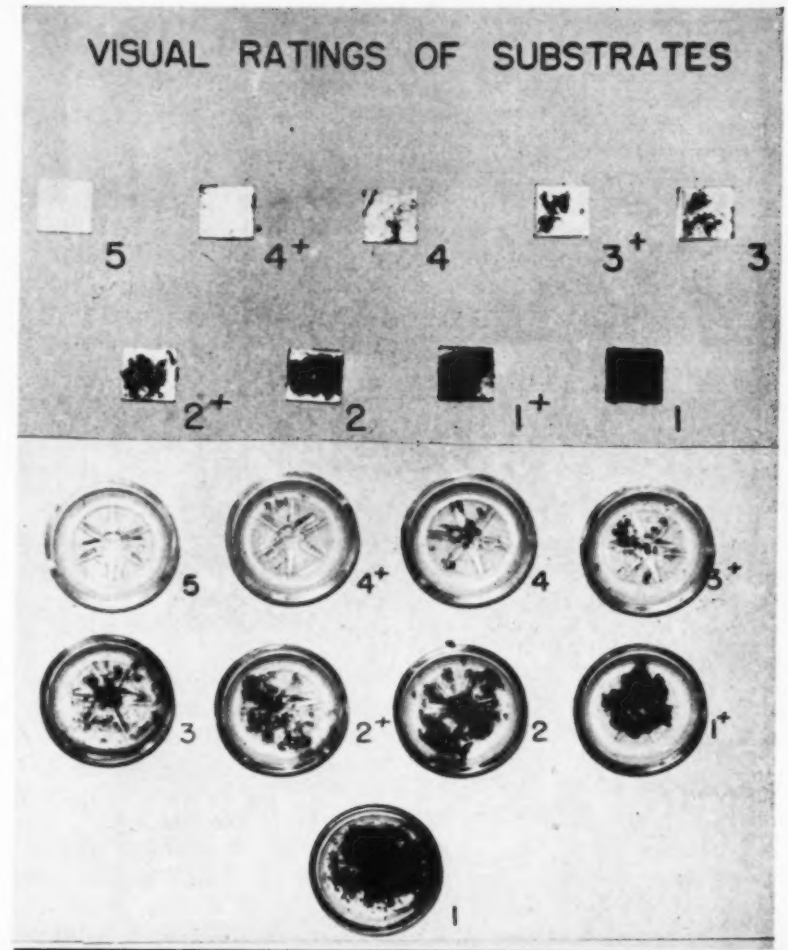
were rinsed briefly in tap water and spread out for visual inspection and comparison with a set of standards.

As shown in Figure 1, cleanliness was rated by points ranging from five for "completely clean" to one for "completely soiled." Where desirable these ratings were further subdivided to describe intermediate conditions of soiling. The sum of the ratings over any desired concentration range could be converted to describe percentage efficiency of the detergent in removing soil as well as its effectiveness in preventing redeposition of soil on clean substrates. A combination of both of these values represents the overall detersive efficiency of the surfactant.

Table I is an example of the way these data may be reported. The five concentrations which were selected encompass the useful range of the detergent and permit suitable plotting of performance against logarithm of concentration. The data not only describe the efficiency of the detergent in removing soil, and in preventing soil redeposition, but also reveal the minimum concentration at which the detergent is effective. This feature, and the speed and simplicity of the test, makes the procedure very useful.

Finally the ability of the detergent to suspend the oily-carbon soil can be determined by photometric examination of the detergent solutions with a simple spectrophotometer. Sample optical densities are listed in Table I and their significance in terms of the appearance of the detergent solutions is pictured in Figure 2.

Optical densities, however, should be considered only as useful secondary indication of detersive efficiency and not as a primary factor. Other work in this laboratory, which is to be published shortly (2), has shown quite conclusively that the nature of the substrate being cleaned determines the state of subdivision of the oily-carbon soil when it is dispersed in the detergent. Thus, when shaken in a nonionic surfactant, soil came off metals fairly readily and in finely dispersed form, whereas it came off glass or plastic substrates slowly, and in



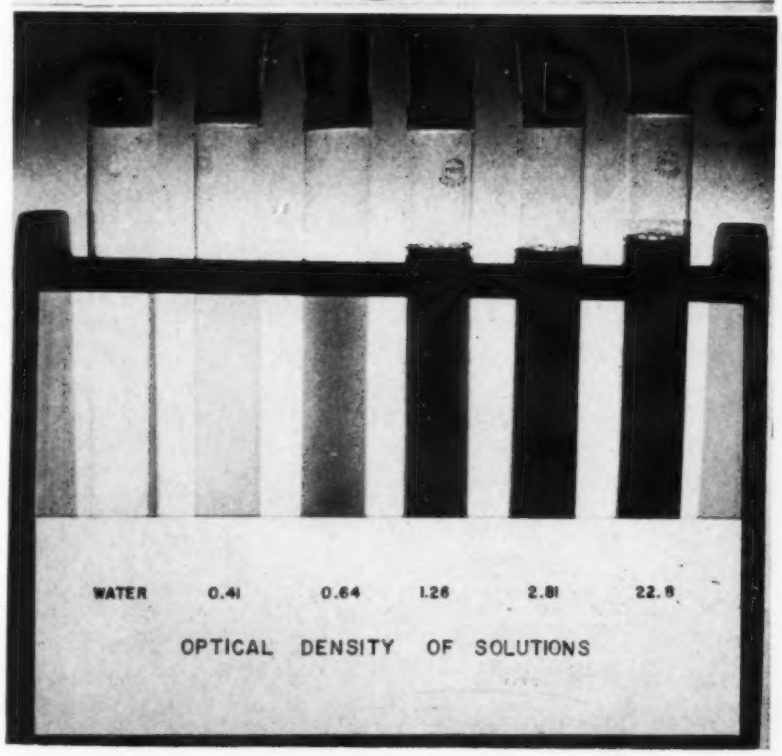


Figure 2. Optical Densities of Solutions.

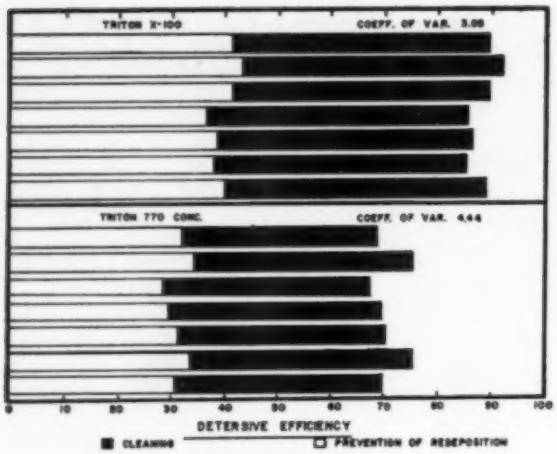


Figure 3. Reproducibility of test method.

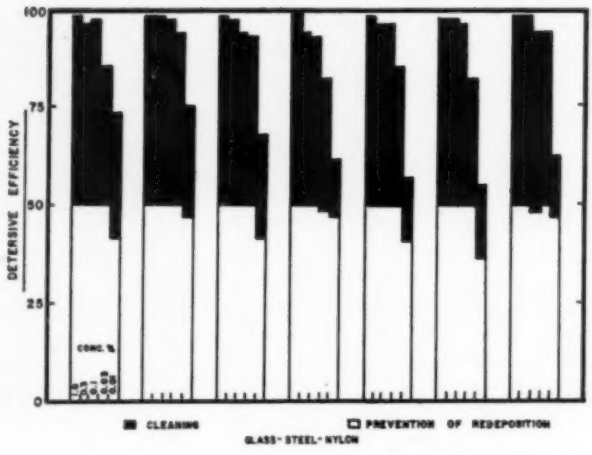


Figure 4. Reproducibility of test method at each concentration. Triton X-100.

rather large clumps. Consequently, although amount of soil was the same on both metal and glass substrates, and they were cleaned completely, differences in particle size of dispersed soil produced dissimilarity in optical densities of the two detergent solutions.

Precision of Test

SINCE application of soil to the substrates and estimation of visual ratings are both highly subjective in character and would certainly vary with the individual conducting the test, reproducible results may be expected only with experienced operators. After a few weeks of training, however, a fairly high degree of proficiency may be expected from reasonably skillful laboratory technicians.

This is demonstrated by the bar graphs in Figure 3 in which the results of seven replicate detergency determinations are shown for each of two detergent samples. The substrates were glass, steel and nylon squares. In this bar graph — as in most of the graphs which are to follow—the overall percentage detersive efficiency of the surfactant has been reported as a bar made up of two portions. The blackened portion represents the contribution of the cleaning factor to overall efficiency, and was calculated from ratings of soiled substrates; the white portion was calculated from ratings of the clean substrates and describes the efficiency of the detergent in preventing soil redeposition. For five of the seven determinations, no undue care was taken in application of soil, yet coefficient of variation for amount of soil applied to 40 substrates was found, by weighing, to be less than 25 percent. In spite of this apparently large variable, coefficients of variation for overall detergency ratings were less than five percent for both surfactants.

Somewhat larger variation was noted for the cleaning factor than for the factor describing prevention of soil redeposition—as may be expected; but both factors were comparable for the two detergents used—even though one of these was markedly superior to the other.

Not only were overall detergency ratings reliable, but, as shown in Figure 4, the ratings obtained at each concentration also showed a fairly high degree of reproducibility. If desired, this precision could be improved further by carefuly controlling the amount of soil applied to each substrate. However, such accurate control is not necessary since the test

Figure 5. Detersive efficiency of low foaming dishwashing detergent formulations.

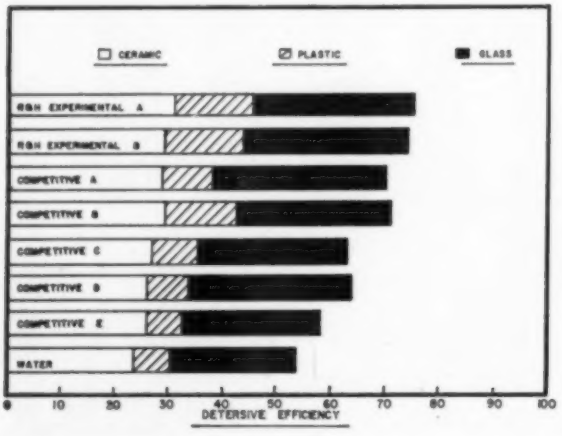
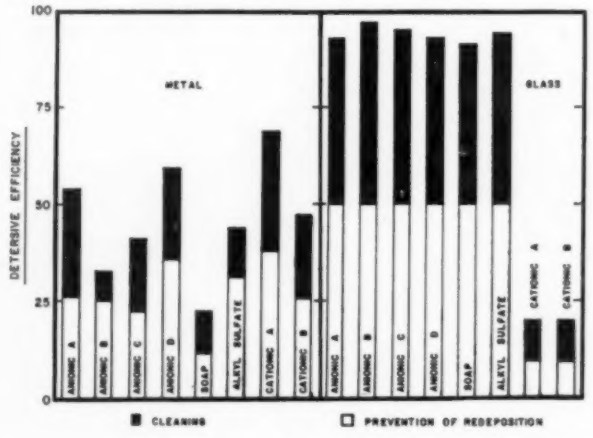


Figure 6. Anionics and cationics on metal and glass.



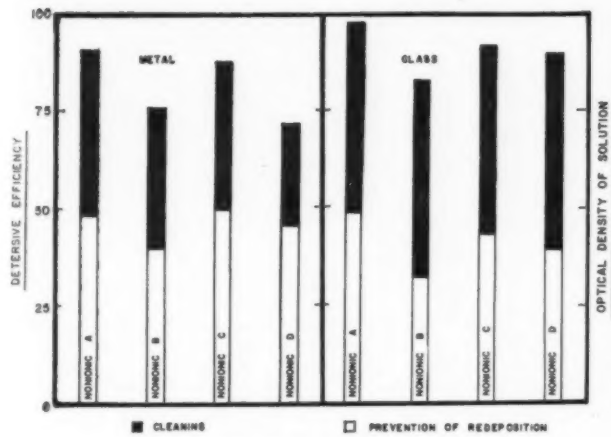


Figure 7. Nonionics on metal and glass.

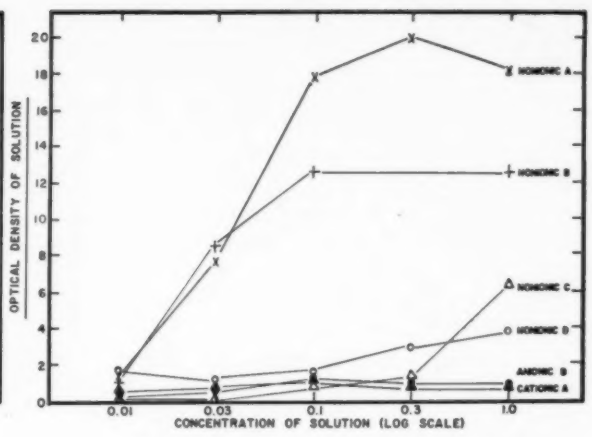


Figure 8. Optical densities of surfactant solutions.

method would then be more precise than required.

The essential feature of this method is that it provides a simple, rapid and reliable estimate of efficiency of a detergent in cleaning a particular soil from a particular substrate. It simulates practical cleaning conditions but in no way duplicates them. There are too many variables in an actual cleaning operation to warrant the ultimate in precision in the test method. Consequently, with these limitations in mind, the data obtained may be used to advantage without being misleading. A further refinement can be achieved by repeating the test in all cases where ratings of any pair of substrates differ by more than some predetermined maximum score—and this technique is now being used to improve the reliability of the test.

For those desiring still greater precision, a radioactive tracer can be incorporated into the soil and residual soil or soil redeposition measured accordingly.

Figure 5 shows the kind of results that may be obtained by this method in evaluating a series of low foaming dishwashing detergents as cleaners for soiled ceramic tile, melmac and glass substrates. Here only overall detersive efficiency is reported and the three portions of the bar describe the performance of the detergents on each of the three substrates. These data are of interest because they correlated fairly well with observations by a consumer panel who tested these samples in their homes and rated them according to their own preferences.

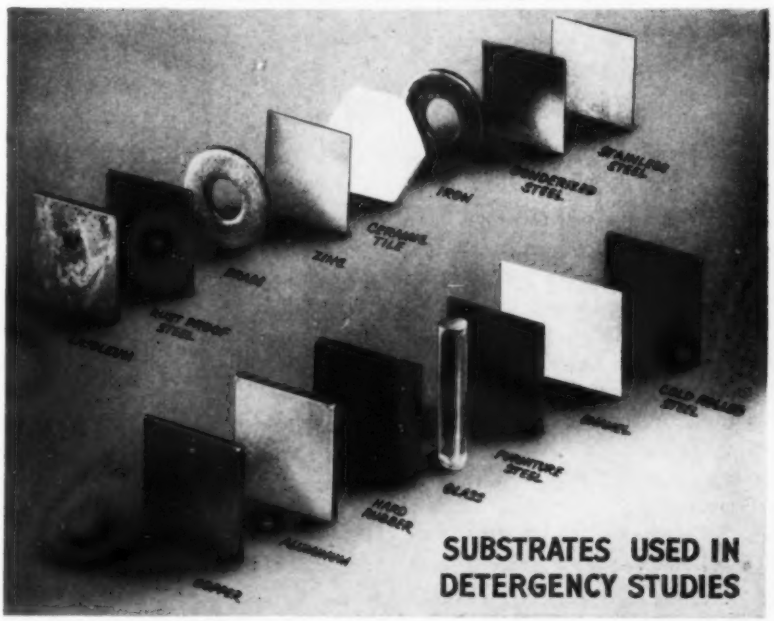
Differences Between Ionics and Nonionics

THE test method revealed striking differences in performance between ionic and nonionic surface active agents. Metal and glass substrates, soiled with the standard oily-carbon paste, were cleaned with anionic, cationic and nonionic surfactants. Figure 6 describes graphically the performance of the ionic materials and summarizes our experience with many surfactants of this type. The data indicate that although the anionic surfactants generally cleaned glass well, they were ineffective—and in some cases caused soil redeposition—on metals. Similarly the cationics promoted soil redeposition on glass. The nonionics, however, were effective in cleaning both kinds of substrate as shown in Figure 7. Moreover, as shown in Figure 8, they were also especially good soil suspending agents whereas both anionic and cationic materials were quite poor in this regard.

(To be concluded)

Lever Brothers Co., New York, submitted the lowest bid of 6.25 cents on 38,000 pounds of soap in a recent opening for miscellaneous supplies by Federal Supply Service, Washington.

Figure 9. Substrates Used in Detergency Studies



GLYCERINE

ABOUT a year ago, the figures indicated that glycerine, like many other materials, would require a real selling job in 1952. Stocks at the beginning of the year were 55 million pounds, and they moved upward until the first of May to a level of 62 million pounds. Crude production in the first four months averaged 17.7 million pounds per month (including synthetic)—disappearance 16.2 million pounds.

But beginning in May, production declined substantially as Chart 1 illustrates. If we can judge by soap production statistics, and from the government figures of soapmaking fats used, this was not primarily due to a falling off in soap production beyond the normal seasonal pattern. In fact, second and third quarter soap production in 1952 was above 1951, though this was not true of the first quarter production. The decline in glycerine output resulted primarily from a long strike and subsequent production difficulties in synthetic glycerine. To some degree, this has been a continuing factor down through the last few months. There was also a falling off in glycerine produced by fat-splitters selling fatty acids. At the same time, shipments of glycerine had been licensed in the spring for export, going to South Africa which is not ordinarily supplied from the United States market. These raised exports substantially above imports for May, June and July. Domestic disappearance outran production and imports every month since April.

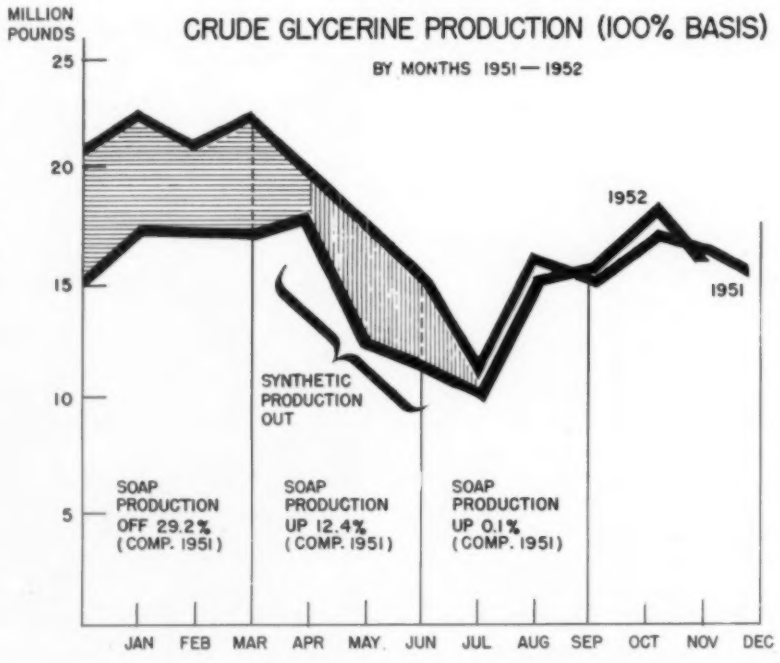
Thus, two unexpected and probably non-recurring factors—the strike and export rise, probably reduced glycerine available domestically in 1952 by more than 18,000,000 pounds. Using estimates for the month of December, we have a total United States production in 1952 of 188,000,000 pounds, in comparison with 211 million pounds in 1951. The net addition due to imports (on a 100% basis) was some five million pounds, as compared with 10 million in 1951. Disappearance, again with estimates for December, totals 210,000,000 pounds in 1952, as compared with 215 million in 1951. The resulting trends in total stocks are shown in Chart 2.

It is easy to overemphasize the supply situation that developed in the early fall, particularly if you are a producer of a competitive product seeking to displace glycerine. This is done by ignoring the non-recurring nature of a major share of the production loss, and ignoring the lag in import-export effects. At least, it certainly does not make sense to imply that glycerine is "going out" because of an unrelenting trend to synthetic detergents. Furthermore, government figures on the year's imports and exports show that beginning in August the conventional pattern had been restored in which imports exceed exports by one million pounds or more per month. I understand they are continuing on a high level in January.

Another factor influencing the situation arises as a result of the purchasing pattern of the alkyd resin and protective coatings industry, which has been estimated to amount to about a third of the glycerine usage. This industry shifted rather quickly, about August, from an ultra-conservative policy as to stocks to acquisitions in advance of need. Expanded paint production in this period is reflected in this chart of glycerine disappearance (Chart 3). As a matter of fact, this move did not apply to glycerine alone. A parallel tight situation in pentaerythritol also developed.

It would be pleasant to be able to assume that glycerine is so preferable for resin manufacture that we do not have to concern ourselves with the pentaerythritol situation. But this would be extremely dangerous from any long-term point of view. It is the stock-in-trade of the resin manufacture to find lower-cost combinations of polyalcohols and other ingredients in his formulation. Generally, total glycerine consumption has gone up with each upswing in paint demand,

Chart 1



TODAY

By E. Scott Pattison*
Manager, Glycerine and Fatty Acid Divisions
Assn. American Soap & Glycerine Producers

but percentage-wise, our position is increasingly challenged. Currently, alkyd resin production is estimated at a rate of 410 million pounds per year, with a predicted annual rate of increase of some 45 million pounds per year for several years. If substantiated, this could add some seven million pounds per year to glycerine requirements.

But glycerine is what might be called the "target" product at which to shoot. And, significantly, alkyd resins are themselves a "target product" in their own field.

Let me digress a minute to explain what I mean by this "target" concept. It dominates the whole development of the billion pounds polyalcohol business.

Generally, we picture a chemical business starting at the test-tube level. A new product of unusual characteristics is found. A pilot-plant produces quantities for commercial trial. Then, from small beginnings in the market, by research and education and application aid, consumption is pushed from the 100 pound level to the 1000 pound level, to the 100,000 pound level and so on. The silicones are a good example of this kind of growth.

But, sometimes, quite a different pattern is followed. Glycerine, for example, became available in large quantities apart from, and in advance of, modern usage research. Its availability and good properties were recognized, and it was seized upon by emerging user industries. Quantity uses, such as a humectant for cigarettes, a cellophane plasticizer, or a base for alkyd resins, grew out of its availability. As an example, the demands of the resin industry alone have grown to more than the entire production of glycerine 20 years ago.

But once a quantity-market is built up on the basis of a product's natural characteristics, this market becomes a target attracting the efforts of potential producers of new chemicals tailored to the requirements thus revealed. If they can find a way to better glycerine's performance, or approach it at a price, they can skip the slow developmental expansion from laboratory quantities. A successful substitute has the promise of immediate big scale demand. Thus, it justifies the large-scale capital investment so essential to low-cost production.

As you know, the market for a permanent type automotive antifreeze was first developed because glycerine needed an outlet. It was taken over completely by ethylene glycol for good and significant technical and cost reasons. Thus, the base for large-scale low-cost production of glycols was established, and this in turn led to the stimulation of other new uses for glycols to which glycerine itself had never been applied. For example, there is currently a big expansion taking place in the field of polyester resins used as molded plastics. While the bulk of these are alkyd resins, they are being based on glycols, rather than glycerine. Glycerine was the initial target product for the glycol business, and indeed, for the whole field of polyalcohols. Today, the growth rate of this entire field is at a more rapid rate than the growth rate of glycerine supply, even with synthetic at full output. Those now entering the field still have glycerine's present outlets as a target, rather than

*Before 26th annual convention, Assn. American Soap & Glycerine Producers, New York, Jan. 28, 1953.

Chart 2

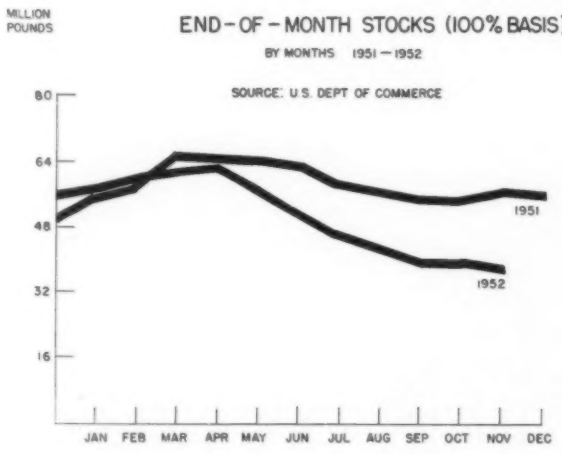
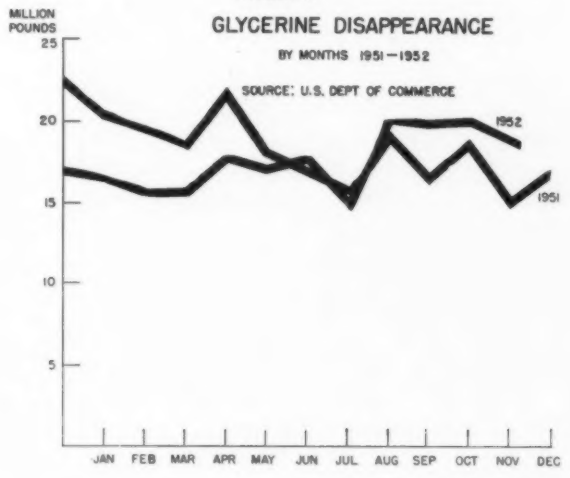


Chart 3



the slow development of new and unfamiliar uses. Within the past few months, a symposium on the usage of one such product followed almost item-for-item down the list of uses which are currently primarily served by glycerine.

When you are a "target" product, a temporary situation of tight supply is anything but a cause for complacency. It is an invitation for the shooting to intensify. The British publication *Paint Technology*, for example, recently editorialized:

> "Surely it is time technicians on all sides really pulled their socks up and produced materials quite free from glycerin yet capable of doing everything expected of them. Things will never be like pre-war again, however many pairs of rose-tinted spectacles are worn; synthetic detergents have widely replaced oleo soaps, so that a lot of glycerin just isn't being made. Synthetic glycerin is unlikely to be commercially practicable in this country, and the imported stuff is prohibitive in price. Let's go to it!"

Now, a few months ago, the government made the assumption that nobody was going to hit the target even if they did pull up their socks. NPA estimated a future demand for glycerine rising to 278 million pounds over the next five years. On this basis, they have sought to bring new capacity into being, inspiring news headlines such as this.

Frankly, there is not much chance that soap-derived glycerine will take up the slack to the extent that future growth in demand suggests. So, we must ask: What are the possibilities of meeting this level by increased production of glycerine from fat-splitting by fatty acid producers, and production of synthetic glycerine—say 75 to 100 million pounds per year? The alternative, of course, would be increasing substitution for glycerine of products such as ethylene and diethylene glycol, propylene glycol, sorbitol and pentaerythritol.

It seems clear that the future of natural glycerine that continues to be put on the market by the soap industry will be benefited by adequate growth in glycerine output—rather than substitutes—from other sources. When other polyalcohols are substituted for glycerine, substantial changes in formulation, and even in equipment are generally made. It is not too practical to switch back and forth from one polyalcohol to another as the supply situation changes. By necessitous research and know-how, even deficiencies in the properties of the substitute product may be overcome.

Therefore, to the extent that other polyalcohols get a substantial foot in the door, the user may find ways to stay with the substitute product, even at some sacrifice in desirable properties, if he foresees future supply crises for glycerine from time to time.

Consequently, the existence of a synthetic glycerine production sufficient to assist in meeting demand growth should be expected to assist in holding markets for natural glycerine as well. Soap-industry glycerine would find itself allied with synthetic as a product whose properties suggest increasingly wide use as industry grows. The alternative would be to accept a role as a declining industry. I cannot imagine a product "on the decline" in overall consumption that would not continually be in danger of having its rate of descent grow increasingly steep.

Thus, our policy seems clear. We must seek to maintain for glycerine in the bulk of present markets, and even push forward by research into new areas of potential demand. This we must do even though more non-soap glycerine is called for to satisfy such market growth.

Guesses which have been made by others concerned with the soap and detergent business, based on the present raw materials situation, suggest a leveling off in the shift from soap to synthetic detergents at about the 50% level. This would suggest that glycerine derived from fats and oils—that's including fatty acid and fatty alcohol glycerine—may continue to be produced at a stable level of 150-175 million pounds per year. But do not overlook the fact that current surpluses of fats are creating new pressures to broaden the industrial use of fatty chemicals from which glycerine has been split. Together with synthetic and imports, glycerine can be expected to meet total usage requirements in the 225-250 million pound range or possibly higher.

Of course, the possibilities of new applications—including military, must be considered too. A new food freezing process out of Denmark, for example, calls for immersion in a glycerine-alcohol-water solution. A new edible transparent wrap—an aceto-sterin using substantial quantities of glycerine, is judged to have good commercial possibilities. An increasing use of glycerine in the preparation of monoglycerides for shortening, margarine and bakery products is to be expected, particularly if current court rulings restricting the use of polyoxyethylene stearates are upheld.

It is easy to take glycerine for granted. Actually, if it had been discovered yesterday, a newcomer to a fully developed polyol industry, its originators would be calling it "the miracle polyol". They would be celebrating its tailor-made balance of humectant properties, its wide freezing-boiling range, its unique physiological position, its high "functionality"—in terms of hydroxy groups—per unit of molecular weight. Moreover, if we can judge by comparable chemicals, they would be spending some five to ten times what we are to educate the new chemical generation about their new miracle product.

Those who have been producing this miracle polyol as a casual sideline all these years have a responsibility to play a part in improving the commercial climate in which glycerine must find and hold its markets. In the petroleum industry, for example, dozens of so-called by-products have become the foundation stones for the new petro-chemical industry. These are now considered as co-products, not simply bookkeeping offsets against raw material costs. This co-product concept suggests a continuing need for the same long-range policies of market-building, research and consumer

education that apply to competitive chemicals. The fact is that the soap manufacturer or fatty acid manufacturer has not ordinary chosen to allocate to crude glycerine production a specific capital investment. Therefore, he has no bookkeeping measure of what is at stake in keeping customers favorably disposed. Surely we have a good object lesson, in tallow, of the ultimate result of this way of looking at things.

There is never so little glycerine in the market that we can risk seeing those who genuinely prefer it drift away with no desire for a comeback.

Of course, there is another aspect of the glycerine business that is important here. That is, its position as a commodity in world trade. In the past, substantial quantities of crude have been imported into the United States. At times, before World War I, they amounted to almost half of our requirements. In some recent years, they have amounted to over 10% of total domestic supply. I am no foreign trade expert, but one theory about the situation seems worth keeping in mind.

In the natural industrial development of a country, the soap industry, like the textile industry, and others tied to basic consumer needs, is among the first to develop. Thus, countries emerging naturally from an agricultural economy produce by-product glycerine in excess of glycerine demand, provided fats and oils are freely available. However, in the planned or dictated-from-the-top type of industrial development, chemical industries with a substantial glycerine-consuming emphasis may tend to outrun the expansion of soap making for household use.

In today's world picture, it would seem likely to expect substantial internal demand for glycerine—or more broadly for polyalcohols—in the types of countries which have sometimes been the substantial exporters of crude. We know this has happened in Japan, for example. If there is anything to this point, it can only mean that American problems of glycerine supply and utilization are not likely to be as greatly influenced by imports from other countries now concentrating on greater industrial self-sufficiency.

So, we come back to domestic problems of technology and public choice. Choice on the supply side, as between the future preference for soap versus synthetic detergents. Technology on the demand side, as between industry's future preference for glycerine—of whatever origin—versus other polyalcohols.

And, we cannot escape the fact that today's industrial choice is based not only on a product's properties, but on the degree to which technologists are told of those properties. Persuasion that is technically well-founded and commercially sound has proven its case. A year ago, I called glycerine "the Cadillac of polyols". Nothing that has happened in the meantime has changed that analogy. And, I don't think either General Motors or ourselves are going to be content to go downhill.

—— ♦ ——

Noville Moves to N. J.

The removal of its office, laboratory and plant operations from 127 Water St., New York, to 1312 Fifth St., North Bergen, N. J., was announced early this month by Noville Essential Oil Co. The company, which was founded in 1939, is under the management of A. G. Nickstadt, founder, and his partner, Alfred H. Moeller. Originally located at 40 Stone St., New York, the new and expanded quarters of the firm are situated halfway between the Lincoln and Holland tunnels and less than one mile from the New Jersey Turnpike.

—— ♦ ——

Hugo Henkel Dies

Hugo Henkel, head of Henkel & Cie., G. m.b. H. Duesseldorf, Germany, died recently at the age of 72. After completing his studies in Stuttgart, Berlin and Paris he joined the firm, founded by his father, as its first and then only chemist and engineer. After his father's and brother's death he took over the leadership of the concern and headed it for 22 years.

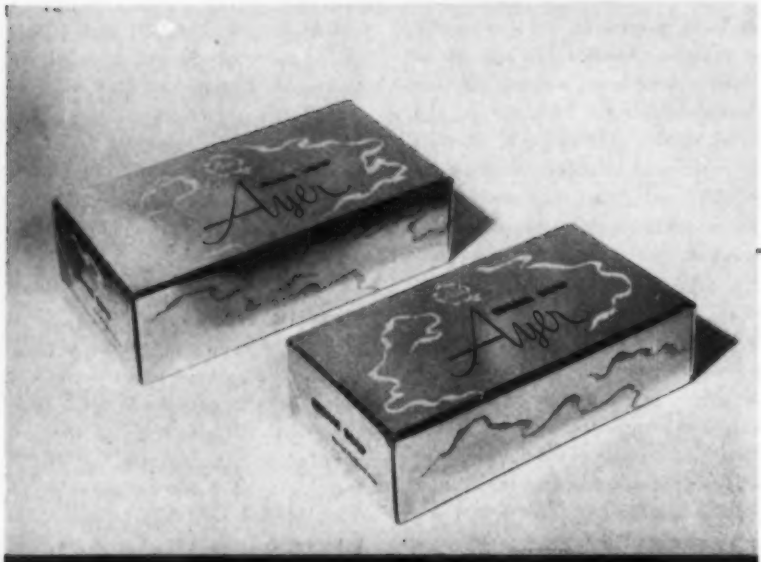
About the Author...

E. SCOTT PATTISON, the author of the article on the present status of glycerine, has been manager of the Fatty Acids and Glycerine Divisions of the Association of American Soap & Glycerine Producers, Inc., since May, 1951. Prior to joining the association he was executive vice-president of G. M. Basford Co., New York advertising agency which handles the Glycerine Division's advertising and publicity. He had been with Basford since 1936.

A graduate of Rennselaer Polytechnic Institute in chemical engineering, he also studied business administration as an Alfred P. Sloan Fellow at Massachusetts Institute of Technology. Later Mr. Pattison served as assistant editor of "Food Industries" magazine and was with Mathieson Chemical Corp. Mr. Pattison succeeded N. N. Dalton of Kansas City, who had been a consultant to the Soap Association on glycerine since the formation of the association in 1926.

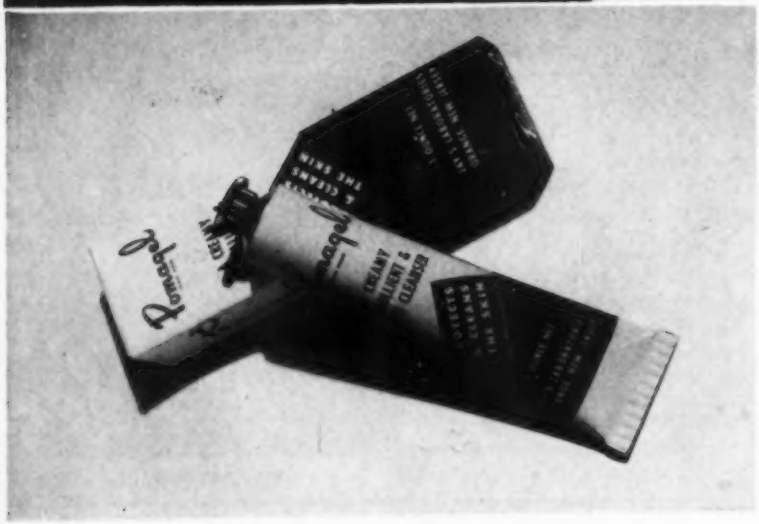
E. SCOTT PATTISON

What's



Unusual gift packaging for "Cream Soap" of Harriet Hubbard Ayer division of Lever Brothers Co., New York, was produced by Robert Gair Co., New York. Gold Gair-Reynolds "Foiline," printed in a white cloud design with identification in black, was employed for the large and small "Cream Soap" cartons. Larger size carton holds three cakes of bath size soap; the smaller, three hand cakes. Interior packaging of gold "Foiline" serves both to separate the soap cakes and hold them in position.

And still another new aerosol application is the Graphic Arts "Sprey" of Acrolite-International, Hillside, N. J. The material being pressure packed is an acrylic-base plastic spray for artists, printers, etc. Product retails for $1.50 per can.



New name for cleansing and emollient cream of Jay's Laboratories, Orange, N. J., is "Pomagel." Recommended for use in homes, offices or out of doors, the cleaner is used for washing without water. It comes in one ounce tubes, individually boxed, 12 tubes to a counter display carton. Individual tubes retail for 48 cents.

New?

Counter display, container for new "Agrigair" soil conditioner and fertilizer of the chemical products division of Botany Mills, Inc., Passaic, N. J., is produced by Hinde & Dauch Paper Co., Sandusky, O. The new liquid soil conditioner aerates, fertilizes, aggregates and feeds, according to the maker. The carton features a fold back lid which forms a colorful, die-cut display, designed to build sales impulse while occupying a small amount of counter space. The riser display panel prominently features brand name and selling copy. A design in the shape of a flower pot provides a novel price spot. The die cut from panel makes it possible for shoppers to examine the product and serve themselves. The box is printed in green and black on white corrugated board. Self-locking bottom construction facilitates assembly and eliminates stitching. Twelve cans of "Agrigair" are packed in each box, which is shipped to dealers in a master unit.

Zonite Products Corp., New York, have adopted the self-dispensing pressure package in a glass container for their "Larvex" moth spray. The new unit is said to be the first completely integrated package of its type. It incorporates a glass bottle containing the product under pressure, protected by a composite fibre container with metal ends. The two basic containers have been united as a single unit. Patents on the principles involved in this low-pressure self-dispensing package have been applied for by Zonite. The fibre container is manufactured by American Can Co., New York. At left in the illustration is shown how the bottle fits into the fibre container. The glass bottle is supplied by Brockway Glass Co., Brockway, Pa.

New "personal pack" of toilet seat covers made by Proctecto Products Co., Pomona, Calif., are being distributed nationally to sell for 29 cents. The personal pack of 10 seat covers is designed to resemble a miniature dispenser. Instructions for opening and placing the cover on the seat are printed on the back of each pack. There are 24 packs to a display carton, which like the packs is printed in two tones of green. The counter display carton features a fold back lid which carries the slogan, "Don't be seat-shy."

FLORASYNTH SPECIALS

SHAMPOO ODORS

OIL BOUQUET H.O. No. 8267 Water Soluble
OIL BOUQUET APPLE BLOSSOM No. 8240
OIL BOUQUET ALMOND No. 8262 Water Soluble
OIL CLOVER No. 888

SOAP ODORS

OIL MIMOSA No. 615
OIL BOUQUET S No. 61
OIL JASMIN No. 613
OIL BOUQUET C No. 613
OIL BOUQUET F. L. No. 300

For LIQUID SOAP

OIL BOUQUET E.C. No. 618 Water Soluble
OIL BOUQUET E.T. No. 618 Water Soluble
OIL HONEYSUCKLE No. 61 Water Soluble
OIL NARCISSUS No. 614 Water Soluble

Florasynth Research Laboratories are always at your service for the development of more practical and quality-improving materials for your production requirements.

TRADE PURITY FLORASYNTH UNIFORMITY MARK

Florasynth LABORATORIES, INC.

CHICAGO 6 · NEW YORK 61 · LOS ANGELES 21

DALLAS · CINCINNATI 2 · DETROIT 2 · MEMPHIS 1 · NEW ORLEANS 12 · ST. LOUIS 2 · SAN BERNARDINO · SAN FRANCISCO 7

Florasynth Labs. · (Canada Ltd.)—Montreal · Toronto · Vancouver · Winnipeg—Productos y Laboratorios Florasynth, S.A. Mexico 11, D.F.

Dressed up *with an attractive ACL label and Owens-Illinois closure, this 16-oz. amber round No. A-8320 makes an outstanding, low-cost sales package for a host of automotive products.*

How to be on the lookout for sales

Chances are your product has to sell itself at the point of sale with today's growing trend toward self-service distribution.

That's why you want to be sure it has all the sales help you can give it to catch impulse sales. By packing in Duraglas stock-mold containers, you can give your line a highly distinctive sales package and still keep within commercial limits on container costs.

Owens-Illinois has hundreds of different sizes, shapes and styles from which you can choose the Duraglas stock-mold containers that are exactly right for your line. Then our packaging specialists will help design an attractive label and closure combination to present your selling message distinctly and forcefully.

Call our local office nearest you for more information today. Remember, no matter what market conditions may be, it always pays to give your line the advantages of selling impact at the point of sale.

The Duraglas stock-mold rounds, shown above, help your line gain brand recognition at the point of sale. Available in a family range of 19 sizes—½-ounce to 128-ounce in flint or amber.

Duraglas packages are protectors of quality

TRADE MARK REG. U.S. PAT. OFF.

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

College of Medicine
DEPARTMENT OF MEDICINE
To all persons to whom these presents may come greeting
Be it known that
Gross Coconut Fatty Acids
Doctor of Medicine

Our Coconut Fatty Acids Merit a Doctor's Degree

Like a well-qualified M.D., our coconut fatty acids go through a highly specialized processing period before beginning to practice in your manufacturing operation.

For example, our Special grade has had a major portion of the lower acids (caproic, caprylic and capric) removed to give a product particularly suited for resin, detergent and cosmetic manufacture.

And our Regular grade—a single distilled acid—is so carefully controlled that it is equal to many double distilled grades, and is of course less expensive.

Send for samples and our booklet "Fatty Acids in Modern Industry." You'll agree that our products live up to the promises made for them.

MANUFACTURERS SINCE 1837

A. GROSS & Company
295 MADISON AVE., NEW YORK 17, N.Y.
FACTORY: NEWARK, N.J.

A. GROSS & COMPANY

295 MADISON AVE. • NEW YORK 17, N. Y.

Distributors in Principal Cities

Factory: Newark, N. J.

Got a perfume problem?

Try us for the answer. We have the solution to many perfume puzzlers right at our fingertips. If we don't have an immediate answer for you, we'll be glad to help you with it.

Here is where Du Pont research can mean a lot to you. Out of the laboratory work continually carried on by Du Pont can come the answer to your particular fragrance problem.

Let us put Du Pont *research*—Du Pont *experience*—Du Pont *perfumers* to work for you. This combination could mean the solution to your poser. Contact the nearest district office, or write: E. I. du Pont de Nemours & Co. (Inc.), Organic Chemicals Dept., Aromatics Section, Wilmington 98, Delaware. *District offices:* New York, Chicago, Los Angeles, Providence, Philadelphia, Charlotte, Atlanta.

For quality aromatics . . . depend on Du Pont

DU PONT AROMATICS

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
.. THROUGH CHEMISTRY

COWLES CHEMICALS

DRYMET*

THE ECONOMICAL DETERGENT SILICATE

Cowles DRYMET, anhydrous sodium metasilicate, is the most highly concentrated form of sodium metasilicate available. DRYMET contains no water of crystallization. One pound of DRYMET is equivalent to 1.6 lbs. of sodium metasilicate pentahydrate. It is more economical to use, on the basis of both Na_2O (alkalinity) and SiO_2 (silicate) than any other type of hydrated or anhydrous detergent silicate, either compounded or by itself.

DRYORTH*

THE HEAVY-DUTY DETERGENT SILICATE

Cowles DRYORTH, anhydrous sodium orthosilicate, is a powerful, speedy, heavy-duty cleaner with valuable penetrating and wetting-out properties, reinforced dirt-removing power and unusual emulsifying action. It is an anhydrous, free-flowing powdered silicate containing not less than 60% Na_2O. DRYORTH is also used as an economical constituent of high pH cleaning compounds.

Also manufacturers of CRYSTAMET, pentahydrate sodium metasilicate and DRYSEQ, anhydrous sodium sesquisilicate.

We'll be glad to send you our DRYMET File Folder containing complete technical information and suggested formulations.

*Trade Mark Reg. U.S. and Canada

WRITE US FOR THE NAME OF YOUR NEAREST DISTRIBUTOR.

COWLES CHEMICAL COMPANY

HEAVY CHEMICAL DEPT.

7016 Euclid Avenue **Cleveland 3, Ohio, U.S.A.**

Phantolid®*

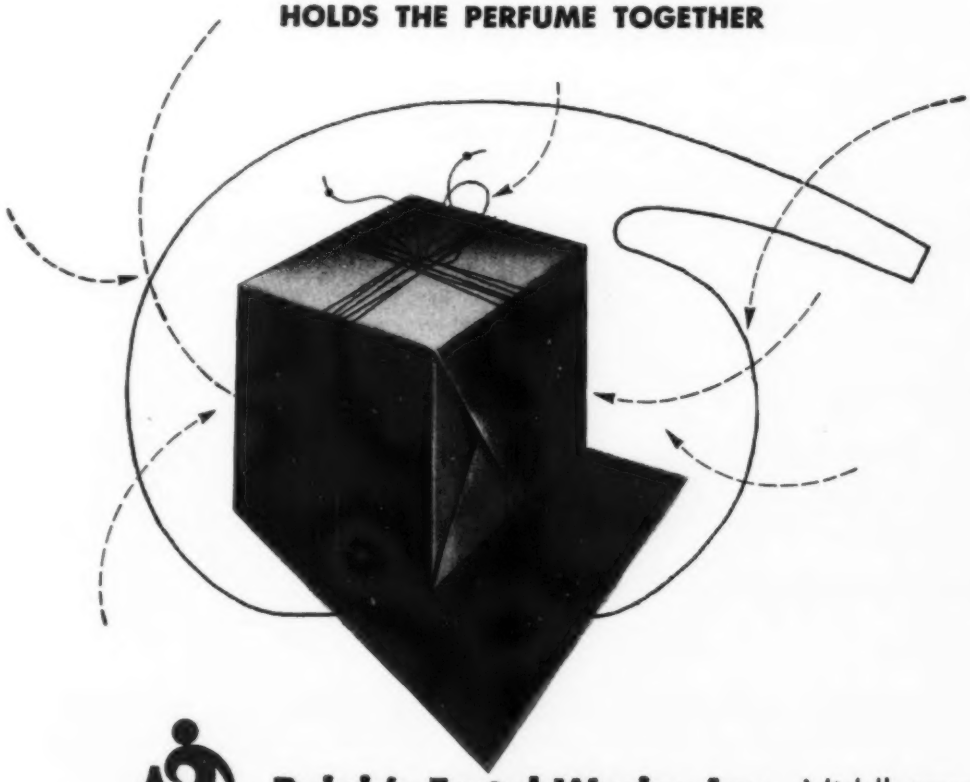
THE
new
aromatic chemical
musk-tonkin type
lasting, economical – $10.00 lb.

Useful addition to present standard fixatives

Does not discolor perfumes, creams, soaps, and other cosmetic preparations

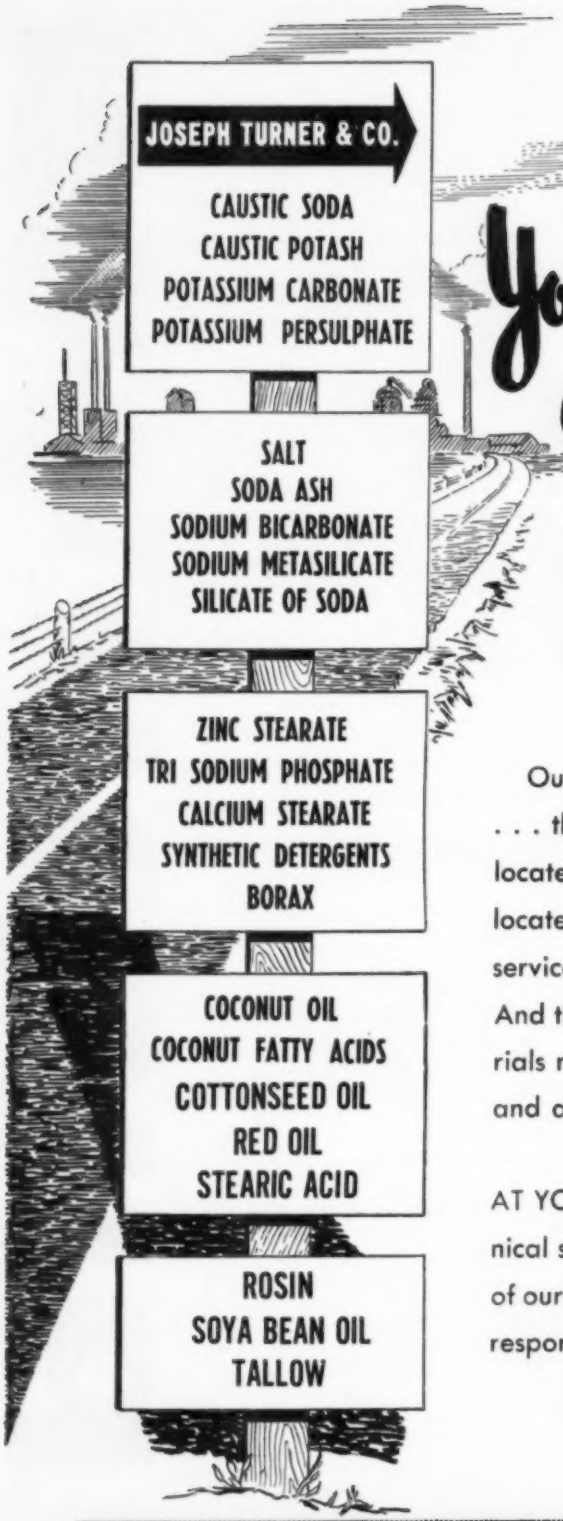
Like a string around a package, it...

HOLDS THE PERFUME TOGETHER



Polak's Frutal Works, Inc., Middletown, New York

*Domestic and Foreign Patents applied for.



Your road to better chemicals ... plus

FOR THE SOAP AND ALLIED INDUSTRIES

Our customers get a *plus* with every order . . . that *plus* is service facilitated by stocks located in strategic cities. Our centrally located Chicago office gives fast, complete service to the Midwest and West Coast areas. And that *plus* is in stocks of many raw materials necessary for the manufacture of soap and allied products.

AT YOUR DISPOSAL: Our experienced technical staff and facilities. Inquiries to any one of our offices will bring prompt and courteous response.

JOSEPH TURNER & CO

83 Exchange Place, Providence, R. I. RIDGEFIELD, NEW JERSEY 435 N. Michigan Ave., Chicago, Ill.

News

Ultra Chemical Officers

Ultra Chemical Works, Inc., Paterson, N. J., manufacturers and processors of chemicals for industry, announced recently the election of new officers. Dr. Henry Ruegg is chairman of the board; William H. Spuhler is president; and Albert Sharphouse occupies the offices of treasurer and secretary. Dr. Ruegg continues to serve as general manager in charge of operations; Mr. Spuhler maintains his post of general sales manager; and Mr. Sharphouse, who has been technical director for the past 10 years, will remain in that capacity. Charles A. Bauman has also been named as controller and director of purchases. Ultra Chemical Works operates three plants located in Paterson; Joliet, Illinois; and Hawthorne, California.

DR. HENRY RUEGG

WILLIAM H. SPUHLER

R. P. McBriarty Retires

R. P. (Dick) McBriarty retired recently from Lever Brothers Co., New York, after serving 49 years in the soap industry. Mr. McBriarty started work with the old N. K. Fairbank Co., manufacturers of "Gold Dust Washing Powder" and "Fairy Soap", in December 1903 at St. Louis. He assisted in the development of the first fluffy washing powder in 1907. He began as a junior analyst, but soon advanced to superintendent of quality. The name of the company was changed to Gold Dust Corp. in 1924 and in 1928 Mr. McBriarty moved to Montreal, Canada as plant manager of its Canadian affiliate.

R. P. McBRIARTY

In 1936 the Montreal plant discontinued operations and Mr. McBriarty returned to Baltimore as assistant plant manager, in charge of office and laboratory. The same year the plant became Hecker Products Corp., and in 1939 Lever Brothers took over with Mr. McBriarty becoming purchasing agent, a position he held until his retirement.

Buys Detergents, Inc.

Monsanto Chemical Co., St. Louis, announced recently acquisition of all outstanding stock of Detergents, Inc. of Columbus, O., a detergent and water softener firm. The company will be operated as a wholly-owned subsidiary. No changes are planned in the organization or among the personnel of the detergent firm, the Monsanto office announced.

Survey Fat and Oil Exports

Paul E. Quintus, head of the fats and oils division of the Office of Foreign Agricultural Relations, U. S. Department of Agriculture, is now in Europe to conduct a first hand study of the fats and oils market there. He is gathering up-to-date information concerning trends in relation to probable United States exports of fats and oils, particularly lard, tallow, soybean and fish oils. Mr. Quintus is placing particular emphasis on his talks with agricultural attaches, foreign government officials, and processors, retailers and importers.

Calvin L. Durham Dies

Calvin Laird Durham, 50, sales manager for the drug products division of Procter and Gamble Co., died recently in Cincinnati.

Cowles Honors Small

Melville A. Small, manager of the production control department of Cowles Chemical Co., Cleveland, was honored on his 25th anniversary with the firm at a special luncheon held recently. Mr. Small joined Cowles immediately after he was graduated from Tufts College in chemical engineering. He worked first with Alfred Cowles, one of the founders of the company. Robert F. Huntley presented a gold service pin to Mr. Small.

Unilever Offers New Soap

Unilever Export Ltd. recently introduced a new toilet soap especially designed for the export market. The new product is trade named "Rexona" and said to contain "Cadyl," a compound of antiseptic and healing oils.

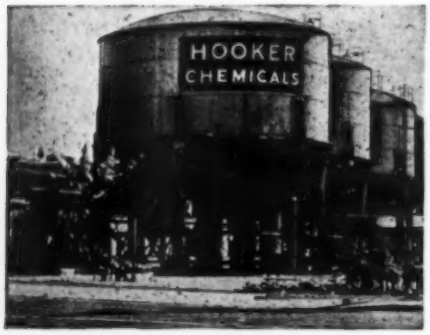
Umpty-thousand tons of HOOKER CAUSTIC *Coming up!*

CONVEYORS feed salt to brine tanks for caustic soda and chlorine production in Hooker electrolytic cells.

We will produce more caustic soda this year than ever before in our history.

This would be meaningless, except that it expresses our belief in the future of the chemical industry—and our readiness to keep growing with it as one of your major suppliers of chemical raw materials and intermediates.

Today, more than ever, you can count on Hooker for dependable supplies of caustic soda, chlorine and many other industrial chemicals.



CAUSTIC SODA DISTRIBUTING STATION

5 Reasons for Specifying HOOKER Caustic

1 Large-tonnage production—The biggest in nearly 50 years—means dependability of supply for you.

2 Quality caustic in the form to meet your needs 50% and 73% liquid; flake; solid. Drums, tank cars, barges. An impressive background of experience in serving large users of caustic.

3 Technical service—Willing, competent help in safe handling and use of caustic in your process. Experience gained from serving 30 industries is at your disposal.

4 Fast, dependable deliveries—More facilities than ever before for getting caustic to you, on schedule.

5 If you use caustic in l/c/l quantities, you can now purchase caustic from a Hooker plant, warehouse or jobber near you. Write us for name and address of your nearest Hooker jobber.

FOR ANALYSES, PRICES, DELIVERY INFORMATION, write Hooker Electrochemical Company, Buffalo Avenue and Union Street, Niagara Falls, N. Y.—or phone your nearest Hooker sales office.

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

NIAGARA FALLS • TACOMA • NEW YORK • CHICAGO • LOS ANGELES

HOOKER CHEMICALS

Lever Advances Campbell

R. Craig Campbell, who has been assistant to the sales vice-president of the Lever division of Lever

CRAIG CAMPBELL

Brothers Co., New York, was recently advanced to the newly created position of assistant national accounts sales manager, it was announced by J. L. Dampier, marketing vice-president of the Lever division. Mr. Campbell joined the firm in 1936, and has risen through the ranks as salesman, field supervisor, and division sales manager. He served in the army during World War II and received a field commission as first lieutenant in the South Pacific. After the war he returned to Lever Brothers Co. as field supervisor and in 1947 was named divisional sales manager for the Syracuse division. In Sept., 1951 he was named assistant to the sales vice-president.

Verona Chemical Leases

Verona Chemical Co., Newark, N. J., recently leased a new industrial building on Springfield Road, off Route 29, in Union, N. J., for use as a laboratory and for offices. The company has its main manufacturing plant at 26 Verona Ave., Newark. The new Verona building is a one story structure and provides 22,000 square feet of floor space.

TGA Convention Committee

Appointment of the 1953 convention committee for the annual meeting of the Toilet Goods Assn. to be held at the Waldorf-Astoria Hotel, New York, May 12-14, was announced recently by Lamson M. Scovill of Scovill Mfg. Co., chairman of the committee. Members of the committee include: Paul Alexander, *Drug & Cosmetic Industry*, John Duncan, Hazel-Atlas Glass Co.; M. Lemmermeyer, Aromatic Products, Inc.; Robert H. Miller, White Metal Mfg. Co.; Eugene J. Moore, Richford Corp.; Waldo Reis, van Ameringen-Haebler, Inc., and Lee Simmons, Imco Container Corp.

New Magnus Cleaner

The marketing of "Magnus Waterless Hand Cleaner" was announced recently by Magnus Chemical Co., Garwood, N. J. While primarily for use where water is not convenient or available, the new cleaner is water soluble. It rinses thoroughly and does not leave an oily residue, according to the manufacturer. A white stiff jell, that contains lanolin, it is said to have no odor of solvent or ammonia. It is said to remove grease, paint, tar, grime and both lithographic and stencil inks. When water is not available it may be wiped off with a towel.

P&G Excellently Managed

Procter & Gamble Co., Cincinnati, E. I. du Pont de Nemours & Co., Wilmington, Del., and Minnesota Mining and Manufacturing Co., Minneapolis, are among the top ten best managed companies in the United States. Ratings are contained in a report issued late last month by American Institute of Management, New York. A total of 330 companies of the 3,000 audited in a twelve-month period are "excellently managed" the report states.

Canadian Permag Builds

Canadian Permag Products, Ltd., is now building their own larger plant in St. Lambert, a suburb of Montreal, according to a recent announcement by Allen A. Rylander, president. The company manufacturers a wide range of industrial cleaning compounds and solvents, as well as doing technical service work for all types of manufacturing industries from coast to coast. General offices will be housed in the new plant. The company plans to move into the new plant next spring, coinciding with the firm's 20th anniversary.

Degener Heyden Sales Head

Fritz Degener has been appointed general sales manager of chemicals for Heyden Chemical Corp.,

FRITZ DEGENER

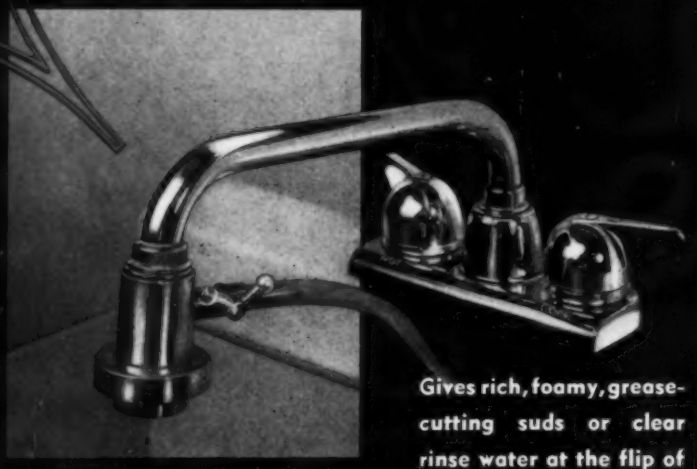
New York, it was announced last month by Simon Askin, president. Mr. Degener, who has been with Heyden since 1930, has been assistant sales manager since 1948. From 1938 until 1948 he was sales manager of Heyden's Chicago branch office, where he had served as a sales representative from 1935 until 1938. Earlier, from 1930 to 1935, he was a sales representative in the New York office.

Before joining Heyden, Mr. Degener was a sales representative in Chicago for Winthrop Chemical Co. He is a past president of the Chicago Perfumery, Soap and Extract Assn., and a member of the Chicago Drug and Chemical Assn., the Chemical and Allied Industries Assn. of Michigan, the Salesmen's Association of the American Chemical Industry and the Chemists' Club.

AOCS Meets May 4-6

The 44th annual meeting of the American Oil Chemists Society will be held at the Roosevelt Hotel, New Orleans, May 4-6. J. A. Kime is general chairman for the meeting. Other members of the convention committee include: Mrs. C. H. Fisher, women's program; T. H. Hopper, technical program; C. L. Hoffpauir, publicity; J. J. Ganucheau, entertainment; W. S. Singleton, golf, R. M. Persell, registration, A. F. Freeman, hotel reservations and E. A. Gastrock, treasurer.

Big time saver... proved successful in all types of food servicing and processing plants!



Gives rich, foamy, grease-cutting suds or clear rinse water at the flip of the lever! Fits all standard faucets!

Buckeye DYJET

outstanding faucet dispenser with finger-tip control lever

BUCKEYE DYSH

- A concentrated liquid detergent!
- Removes grease and soil quickly and easily!
- No toweling necessary when Dysh is used!
- Provides suds instantly in any kind of water!
- Economical! Use only ½ ounce to a gallon of water!
- Easy on hands and skin!
- For best results use with Dyjet.

APPROVED FOR USE BY SCIENTIFIC COMMITTEES AND WATER DEPARTMENTS OF THE NATION'S LEADING CITIES

DYJET is free with a purchase of "Dysh".

CLIP THIS COUPON

DAVIES-YOUNG SOAP COMPANY
Box 995, Dayton 1, Ohio

- ☐ Send Further Information.
- ☐ Send Free Sample of "Dysh".
- ☐ Have your representative call on me.

Name_____

Address_____

City_____ Zone_____ State_____

D.Y QUALITY SINCE 1844

THE DAVIES-YOUNG SOAP COMPANY

P. O. BOX 995 • DAYTON 1, OHIO

D-12 Meets Mar. 16-17

The annual meeting of the American Society for Testing Materials' Committee D-12 on Soaps and other Detergents will be held Monday and Tuesday, Mar. 16 and 17 at the Park-Sheraton Hotel, New York. In addition to discussion of and reports on work of subcommittees dealing with specifications, test methods and related problems, several technical papers will be presented.

A subcommittee on sampling and interpretation of data will hold its first meeting during the annual meeting of Committee D-12, and a new task group under subcommittee T-6 on Metal Cleaning will initiate work on metal cleaning for the automotive industry. H. A. Kafarski of Ford Motor Co. heads the new task group on metal cleaning.

Papers to be presented at the meeting include: "Asphalt Tile Cleaning Agent Specifications" by A. C. Zettlemoyer of Lehigh University; "Realistic Approach to Silicate and Phosphate Analyses in Synthetic Detergent Compositions" by A. M. Mankowich; "Action of Detergents in Sewage Treatment" by a speaker yet to be announced; "Theory of Detergent Action" by Irving Reich, Foster D. Snell, Inc., New York, and "Analysis of Synthetic Detergents" by a speaker yet to be named.

The meeting will be held in the Tower Club Rooms of the Hotel, where there will be group luncheons.

Magnus Honors Fischer

A review of world conditions and their effect on essential oils and the establishment of goals for 1953 were among the highlights of an address by Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., New York, at the firm's 22nd annual sales conference held Jan. 8-10, at the Gramercy Park Hotel, New York.

A. H. Downey, head of the company's technical research department, presided over the three day sales meeting. He was assisted by E. K. Edie. MM&R sales representatives from the U. S., Canada and Cuba attended.

A dinner at Toots Shor's Restaurant, New York, was the closing feature of the meeting. It was attended by 80 members of the Magnus, Mabee & Reynard staff and sales force. William F. Fischer, sales manager of the company was feted on his 45th year with the company, and 18 members of the MM&R 20 year club were honored.

WILLIAM F. FISCHER

PERCY C. MAGNUS

Addis in Pepsodent Post

Appointment of Ambrose J. Addis, marketing director of the Pepsodent Co. of Canada, Ltd., a division of Lever Brothers, Ltd., Canada, as vice-president of Pepsodent Co., division of Lever Brothers Co., New York, was announced recently. He was formerly chairman of J. & E. Atkinson, Ltd., London, the perfumery and cosmetic subsidiary of Unilever, Ltd.

Fitch Plant Auctioned

The entire manufacturing facilities, plus real estate, of the eastern manufacturing plant of F. W. Fitch Co. at Bayonne, N. J. were to have been sold at public auction Feb. 4 on the premises at Avenue A and Gertrude St. The complete manufacturing machinery and equipment suitable for the processing and packaging of cosmetics, etc. was to have been offered at the auction.

Becco Advances Two

John F. Shea, formerly northeastern district sales manager of Buffalo Electro-Chemical Co., a division of Food Machinery and Chemical Corp., Buffalo, N. Y., was recently appointed general sales manager. He has been a member of the sales force since 1930. At the same time the appointment of Fred N. C. Jeraul, formerly assistant to the president, as manager of sales promotion was announced by Max E. Bretschger, president of the company.

McElroy NICB Trustee

Neil McElroy, president of Procter & Gamble Co., Cincinnati, was recently elected to the board of trustees of the National Industrial Conference Board for a term ending in 1954. Mr. McElroy was elected to fill the vacancy created by the resignation of W. Randolph Burgess, formerly chairman of the executive committee of the National City Bank, who becomes assistant to the Secretary of the Treasury.

Davison in Sodium Silicate

Erection of a plant for the production of sodium silicate at Lake Charles, La., was announced recently by Davison Chemical Corp., Baltimore. Designed to produce sodium silicate in both solid and liquid forms, the new Davison plant at Lake Charles will have a capacity of about 300 tons a day. This quantity is said to be enough for other users as well as the Davison plant.

Wyandotte Caustic Booklet

Issuance of a new, 56-page booklet on caustic soda was announced recently by Wyandotte Chemicals Corp., Wyandotte, Mich. The booklet

ARE YOU SATISFIED WITH THE PERFUME IN YOUR...

LIQUID SOAPS?

DOES IT add a *plus* to your profit margin?
Is the odor all it could be
for the price you pay?
If the answer to these questions
is "NO", then perhaps
we have something of interest for you . . .
something in the nature of compounds
specially made for the purpose
. . . powerful, appealing
and fully soluble in weak dilutions.
As a primary source of many of the
essential ingredients composing
these fragrances,
we are in a position to provide you
a type of odor that will meet your needs
at a price you can afford to pay.
Our technical assistance in developing
a more satisfactory fragrance
for your product
is yours upon request
—freely and without obligation.

FRITZSCHE *Established* 1871
Brothers, Inc.

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES *and* *STOCKS: *Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, *St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F. FACTORY: *Clifton, N. J.*

ALSO
PERFUME
SPECIALTIES
FOR:

AEROSOLS
CLEANING COMPOUNDS
DEODORANTS
DISINFECTANTS
FLOOR POLISHES
FORMALDEHYDE SPRAYS
HOUSEHOLD SPRAYS
INSECTICIDES
LAUNDRY SOAPS
PARA BLOCKS
SCOURING POWDERS
SHAMPOOS
TOILET SOAPS
ETC.

contains data on grades of caustic, manufacturing processes, analytical methods, shipping, procedure for billing, freight rates, unloading and handling precautions, containers, materials of construction for storage tanks, pipe lines, pumps, etc. for the handling and storage of caustic soda. The booklet is available on request from Wyandotte Chemicals Corp., Michigan Alkali Division, Wyandotte, Mich.

Oil Chemists Hear Conen

A discussion of the "Economic Aspects of the Vegetable Oil Industry," by James Conen, assistant vice-president and director of research of Archer-Daniels-Midland Co., Minneapolis, was the highlight of the Jan. 21 meeting of the Northeast Oil Chemists' Society, held at the Building Trades Club, New York. Mr. Conen was speaking as a replacement for S. O. Sorenson, vice-president and technical director of A-D-M, who was originally scheduled to speak, but was unable to attend.

Peter Kalustian of E. F. Drew & Co., Boonton, N. J., first president of the organization was presented with an inscribed gavel for his part in the formation and subsequent growth of the association.

A nominating committee composed of Stuart Woodruff of Durkee Famous Foods, Elmhurst, N. Y., as chairman; Ferris Altherr, J. Howard Smith Co., Port Monmouth, N. J.; M. J. Carpinella, of his own firm, New York, and William Barry of Van Iderstein Co., Long Island City, N. Y., was appointed at the meeting.

Although most of Mr. Conen's talk dealt with drying oils he pointed out that because the uses of oils for industrial and edible purposes overlap they are partially dependent on each other. "Factors tending to decrease our edible oil supplies or limiting the availability of soap stocks affect the broad picture of drying oil use. Similarly, a shortage of an important drying oil has a definite effect on the overall picture of edible oil availability."

Mr. Conen also mentioned the inroads in the soap market made by synthetic detergents, and pointed out that as a result of the growing use of synthetic detergents based on petroleum as a raw material, fat consumption in the soap industry has shrunk from 2.4 billion pounds in 1947 to 1.6 billion pounds in 1951. "In effect, 800 million pounds of fats and oils have been released for other purposes," he said.

Following his talk Mr. Conen showed slides of various phases of soybean production and processing. A question and answer period concluded his presentation.

The next meeting of the Northeast Oil Chemists' Society will be held April 7, at the Military Park Hotel, Newark, N. J. The name of the speaker has not been announced as yet.

Robert J. Milano, above, of Millmaster Chemical Co., New York, was installed as president of the Salesmen's Association of the American Chemical Industry, at a dinner meeting in New York recently.

Fatty Alcohol Data

A newly revised data sheet listing typical analyses for 14 types of "Cachalot" brand cetyl, oleyl and stearyl alcohols, including NF, USP, technical and commercial grades used in the soap and sanitary chemicals industry, was announced recently by M. Michel and Co., 90 Broad St., New York. The file-size bulletin is available to chemists, production managers and purchasing agents in the field.

DCAT Reelects Magnus

Reelection of Robert B. Mangus, vice-president of Mangus, Mabee & Reynard, Inc., New York, as treasurer of the New York Board of Trade was announced recently following a meeting of the board of directors at India House, New York. This is the third consecutive term for the post by Mr. Magnus. He was also reappointed to the executive committee of the group and has been a member of the board of directors for a number of years.

Pierdon Joins Wrisley

Clare Pierdon, who formerly covered St. Louis for Yardley, Inc., New York, recently joined Allen B. Wrisley Co., Chicago. He will cover the St. Louis and Kansas City territories.

El Dorado Names Reisman

El Dorado Oil Works, San Francisco, recently announced the appointment of Harvey Reisman, 27 William St., New York, as its exclusive sales agent for fatty acids and derivatives in New York, New Jersey, Pennsylvania, Maryland and Delaware.

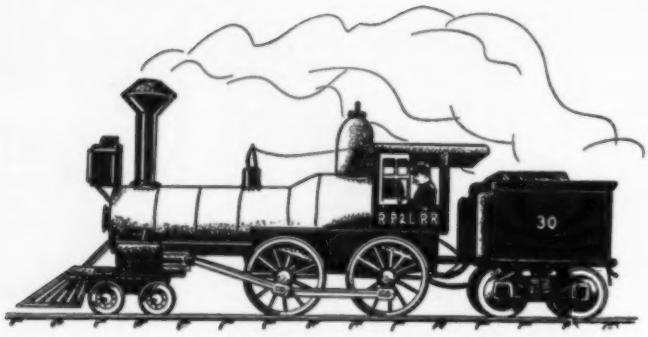
1953 Boston Bims Plans

The 1953 BIMS of Boston season is opening with the annual midwinter dinner at the Weston Golf Club, Weston, Mass. on February 19, according to Hart Harris, Jr., of S. B. Penick & Co., BIMS chairman. A steak dinner followed by bowling and card garmes, also distribution of door prizes, was listed on the program. Ed Aldrich of Rexall Drug, the Boston BIMS "old pro" and treasurer, is handling finances of the party as usual.

Other 1953 plans for Boston BIMS include three golf tournaments and dinners through the summer as follows: June 24 at Weston Golf Club; August 13 at the Dedham Country and Polo Club; September 15 at the Nashua Country Club, Nashua, New Hampshire.

Sodium Perborate Booklet

A 16-page booklet describing sodium perborate and sodium percarbonate was issued recently by Laporte Chemicals Ltd., London, England. Detailed information on the physical and chemical properties of these products is supplied and factors influencing their stability are discussed. Among the numerous industrial users of the perborate are makers of household detergents, who blend it with either soap or synthetic detergents in powder form together with selected alkalis. When dissolved in water the cleansing



Since the Days of the "Iron Horse..."

CHECK YOUR NEEDS FROM THIS LIST

VEGETABLE OILS

Babassu
Castor
Cocoanut
Corn
Cottonseed
Olive
Palm
Peanut
Sesame
Soybean

ANIMAL FATS

Sperm Oil
Oleo Stearine
Lard Oil
Neatsfoot Oil
Grease
Tallow
Lanolin

FATTY ACIDS

Red Oil
Tall Oil
Tallow
Stearic Acid
Hydrogenated Fatty Acid
Cottonseed and Soybean Fatty Acids

ALKALIES

Caustic Soda, Solid, Liquid, and Flake
Soda Ash, Light and Dense
Carbonate of Potash, calcined and hydrated
Calcium Chloride
Tri Sodium Phosphate
Tetra Pyro Phosphate
Quadrafos Granular and Beads—a stable polyphosphate for water conditioning and mild but effective detergency.

Soapers have depended on WH&C ...for Raw Materials of Quality

SINCE 1838, we've been supplying the nation's "soapers" with basic raw materials.

SILICATE OF SODA—Liquid powdered and solid.

META SILICATE—"Metso"* Granular.

METSO* DETERGENTS—55, 66, 99.

MAYPONS—Unique surface active agents; prolific foam; high detergency and emulsifying powders; suitable for cosmetic and industrial use.

AIR DRYETTES • CHLOROPHYLL

** Reg. U. S. Pat. Off., Phila. Quartz Co.*

Let us mix your dry private formulas

Established 1838

Welch, Holme & Clark Co., Inc.

439 WEST STREET NEW YORK 14, N. Y.

Warehouses in New York and Newark, N. J.

action of the detergent together with the mild bleaching effect of the perborate is said to be rapid and gentle to the fabrc. Sodium perborate is used in dentifrices and in denture cleaners, as well as in shampoos and other cosmetics. Applications of the percarbonate are similar. The booklet contains an appendix giving methods for the determination of the strength of sodium perborate and sodium percarbonate.

P&G Announces Contest

A 20-day contest beginning January 19 and featuring more than $100,000 in prizes was announced recently by Procter & Gamble Co., Cincinnati, on behalf of "Ivory Snow" and "Camay" brands. Backed by an extensive radio, TV, magazine and newspaper campaign, the contest offers Crosley all-electric kitchen appliances valued at more than $100,000 and a grand prize of $5,000.

There will be 20 separate contests in 20 days. The daily first prize is a Crosley all-electric kitchen plus a $500 cash installation allowance, three daily second prizes consist of an eight cubic foot capacity Crosley "Shelvador" freezer, 25 daily third prizes of a Crosley "Coloradio". Entries of the 20 daily prize winners will be judged for the selection of a grand prize winner, who will receive $5,000 in cash.

The contest requires entrants to complete the following sentence in 25 additional words or less: "I keep (Ivory Snow or Camay) on hand because . . ." All entries must be accompanied by one Ivory Snow box top or three Camay wrappers of any size.

Harrington to Indoil

George A. Harrington has recently joined Indoil Chemical Co., Chicago, as market research director. He was formerly associated with Mallinckrodt Chemical Works' development activities prior to which he was with Socony Vacuum Oil Co.'s chemical products division. Dr. Harrington is a graduate of the University of Nebraska and took his doctorate at Northwestern University. His previous industrial connections also include Allied Chemical & Dye Corp. and Mellon Institute.

Smith in New Post

Richard C. Smith, Jr. was appointed recently by Stokes and Smith

RICHARD SMITH

Co., Philadelphia, subsidiary of Food Machinery and Chemical Corp. as its representative in New England territory. He is in charge of handling the S & S Paper Box Machines and S & S Filling and Packaging Machines. Mr. Smith has offices in Needham, Mass.

William R. Basset Dies

William R. Basset of Greenwich, Conn., 69, former director of Colgate-Palmolive-Peet Co., and of Vick Chemical Co., died recently.

Givaudan Advances Fiore

Appointment of A. T. Fiore as coordinator of new product development and service laboratories for Givaudan-Delawanna, Inc., and its affiliate, Sindar Corp., New York, was announced recently by E. R. Durrer, vice-president. Mr. Fiore, who is a

A. T. FIORE

graduate of Fordham, joined Givaudan twenty years ago as chemist in charge of the analytical department. Since 1934 he has been a research associate of the Givaudan.

New C-P-P Detergent Aid

"Colgate Laundry Brightener", a new detergent aid, was introduced recently by Colgate - Palmolive - Peet Co., Jersey City, N. J. The new brightener is designed for whitening shirts and other white cotton work in day to day power laundering. Directions call for the use of two ounces of Colgate Laundry Brightener per 100 pounds of goods in the wash wheel. Hospital, hotel and institutional work require only one ounce per 100 pounds of goods. The product is to be added in the suds operation before the bleach operation and bluing may be eliminated. A folder describing the new brightener is being offered.

Revise Stiefel Stock

Articles were filed in the office of the secretary of state by Stiefel Medicinal Soap Co., Waterloo, N. Y., requesting a revision of its capital stock. Application was made to change its capital stock from 1,100 shares, 500 shares of $100 preferred and 600 common shares having no par value to $51,200 of which 500 shares are preferred and 6,000 common shares valued at 20 cents.

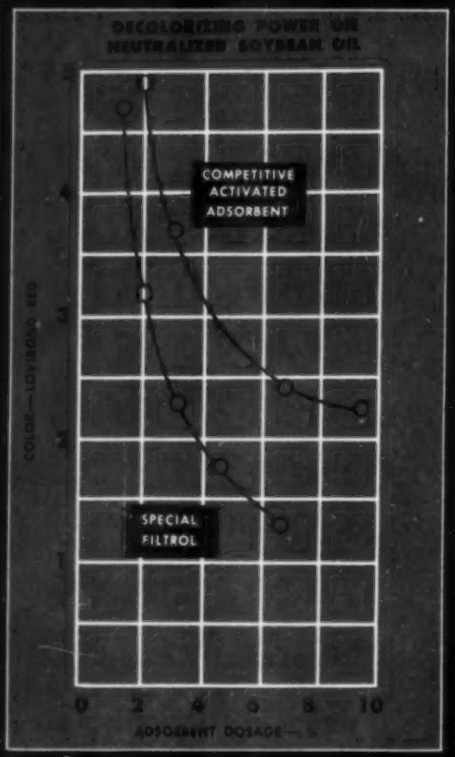
Cole Enters 25 Yr. Club

Marvin Cole, assistant perfumer of George Lueders & Co., New York, recently became the fifty-third member of the firm's veterans organization. Mr. Cole was honored at a celebration in the company's office at which he was presented with a service pin, a wrist watch from the firm and gifts from the employes. Later he was tendered a luncheon by his fellow veterans at the Drug and Chemical Club.

At the same time, it was announced that James McKnight, a Lueders salesman for over 47 years, celebrated his eightieth birthday. Mr. McKnight covers the near western part of the U. S. and also calls on certain accounts in the New York area.

laboratory analysis proves superiority of Special Filtrol

Decolorizing Power	Competitive Activated Adsorbent	Special Filtrol
At 3.0 Red, %	56	100
Physical Properties		
Acidity, mg KOH/g.	7.0	1.7
Oil Retention, % as chgd.	64.3	51.4
Press Rate, ml/min.	21	45
Foreign Matter, %	14.7	3.4



For better results at less cost specify Special Filtrol

DATA INDICATE

1. Special Filtrol has nearly twice t decolorizing power of the competiti adsorbent.
2. Special Filtrol has ¼ the acidity meaning filter cloths last longer, a less free fatty acid increase.
3. Special Filtrol has 12.9% less oil rete tion in the press cake which, wi Special Filtrol's higher decolorizi power, means that oil losses are le than ½.
4. Special Filtrol has a faster filter pre rate — meaning greater production.
5. Special Filtrol has less erosive foreig matter — meaning less wear on pump lines and other equipment.

Filtrol* CORPORATION

General Offices: 727 West 7th Street, Los Angeles 17, California • Plants: Vernon, Calif.; Jackson, Miss.; Salt Lake City, Utah

*T. M. Reg. U.S. Pat. Off.

Rinso Seed Premium

Lever Brothers, New York, announced recently a sales promotion campaign for Rinso whereby it gives

a premium of three seed packages, packed inside one-ecenomy-size Rinso or in one of two large-size Rinso packages, glued back-to-back. The offer is continuing through March, and is being promoted nationally except for the Kansas City division where a test operation is being conducted.

New "All" Package Size

Macy's department store, New York, recently conducted an extensive direct mail advertising campaign to residents of the metropolitan New York area featuring a new 25 pound package of "All" laundry detergent for use in automatic washing machines. The price of $4.95 is listed as an introductory offer, and the package regularly sells for $5.95. "All" is made by Detergents, Inc., Columbus, O., negotiations for the sale of which to Monsanto Chemical Co., St. Louis, were reported in progress recently. The new package features a big new top flap large enough to allow users to insert a cup to get the required amount of the detergent.

To National Can Board

Four new directors were elected last month to the board of National Can Corp., New York, Robert S. Solinsky, president, announced. Elected to the board were: George M. Bunker, president of Glen L. Martin Co.; Douglas Casey, president of the underwriting firm of Allyn & Co.; C. S. Harding Mott, vice-president of the Charles Stewart Mott Foundation, Flint, Mich.; and Albert E. Repenning, vice-president of Inter-American Orange Crush Co.

Eastman Forms Selling Unit

The marketing of chemical products manufactured by Tennessee Eastman and Texas Eastman divisions of Eastman Kodak Co., Rochester, N. Y., is now being handled by Eastman Chemical Products, Inc., Kingsport, Tenn., James C. White, president of Tennessee Eastman announced recently.

J. C. Stone, formerly executive vice-president of Tennessee Eastman Co., has been appointed president of the new organization. H. L. Ford is vice-president and J. E. Magoffin sales manager in the chemicals department.

Peter Pan New C-P-P Soap

Colgate-Palmolive-Peet Co., Jersey City, N. J., will launch a new product, chlorophyll toilet soap, to tie-in with Walt Disney's new movie "Peter Pan", it was announced recently. Colgate, which has held the Peter Pan trademark for soap for some years, will introduce the soap according to the release pattern of the film —starting in 10-12 major areas and spreading out with the picture.

Heads Chlorine Group

R. W. Hooker, vice-president in charge of sales of Hooker Electrochemical Co., Niagara Falls, N. Y., was reelected president of the Chlorine Institute, Inc. for the fifth consecutive time, at a recent meeting in New York. Louis Neuberg, vice-president of the Westvaco Chemical Division of Food Machinery & Chemical Corp., New York, was elected vice-president. Robert T. Baldwin was elected secretary-treasurer.

Amer. Alcolac Buys Plant

The American Alcolac Corp. of Baltimore, manufacturers of basic detergent materials, has purchased the buildings and 5½ acres of land at 3440 Fairfield Road, Baltimore, from the U. S. Industrial Chemicals Co. Division of National Distiller Products Corp., New York, Vova Blinoff, president of American Alcolac, announced this month. American Alcolac formerly leased this property from the seller.

Established in Baltimore three years ago, American Alcolac has branch offices in New York City at 551 Fifth Ave., 6 North Michigan Ave., Chicago, and at 330 Washington Road, West Palm Beach. Its Canadian subsidiary is the Alcolac Corp. of Montreal.

American Alcolac's sister company, Sinova Inc. is the oldest synthetic detergent company in France. It has offices throughout Europe and in North Africa.

The American Alcolac Corp. transforms and supplies chemicals to manufacturers of detergents and other household products.

Left to right—William Marsh, Jr., president of U. S. Industrial Chemicals Co.; Vova Blinoff, president of American Alcolac Corp.; Serge Giers and John E. Andre, American Alcolac vice-presidents.

OAKMOSS

For years, Roure Bertrand Fils Grasse (France), have specialized in producing a large range of Oakmoss Resinoids and Absolutes for use in all types of perfume and soap compounds, as well as cosmetics

Roure-Dupont, Inc.

ESSENTIAL OILS, AROMATIC CHEMICALS AND PERFUME BASES

GENERAL OFFICES
366 MADISON AVENUE, NEW YORK 17, N. Y

CHICAGO BRANCH
510 NORTH DEARBORN ST.

LOS ANGELES BRANCH
5517 SUNSET BOULEVARD, HOLLYWOOD

SOLE AGENTS IN UNITED STATES AND CANADA FOR
ROURE-BERTRAND FILS et JUSTIN DUPONT
GRASSE (A.M.) FRANCE — ARGENTEUIL (S & O) FRANCE

Perfumers Elect Officers

The American Society of Perfumers, Inc., New York, elected its officers at a recent meeting held at the Advertising Club. The following officers were elected for the year 1953: chairman, board of directors, Fred W. Fielding, Synfleur Scientific Laboratories; president, Albert J. Dillinger, van Ameringen-Haebler, Inc.; vice-president, Roy J. Huttleston, Naugatuck Aromatics; secretary, William H. Barlow, Orbis Products Corp.; treasurer, R. B. Houk, Dodge & Olcott, Inc. Everett D. Kilmer of Lever Brothers Co., was elected to the board of directors for a term of three years.

Elected to membership at the meeting were Paul H. Lelong, Warner-Hudnut, Inc.; Dr. Oliver L. Marton, Shulton, Inc.; Maurice A. Meunier, Les Parfums de Dana, Inc.; Thomas Miserendino, Ph. Chaleyer Inc.; Pierre L. Rougny, Houbigant, Inc.; Edward J. Shuster, van Ameringen-Haebler, Inc.; Francis H. Sloan, Roubechez, Inc.; and Miss Franya H. Zibrosky, Orbis Products Corp.

Gair Names Levings

Robert H. Levings was recently appointed as sales representative at the Chicago office of Foiline division of Robert Gair Co., New York, manufacturers of folding cartons, paperboard and shipping containers. Mr. Levings was a sales representative for nine years in the packaging division of Reynolds Metal Company. He attended Colorado College and Northwestern University.

New District Sales Office

Continental Can Co., New York, recently opened a new district sales office in Omaha in preparation for the late 1953 opening of the company's metal can manufacturing plant in that city.

T. A. Graham, who joined Continental in 1919, was appointed district sales manager of the new office. He was formerly district sales manager at Kansas City. Sales offices at Kansas City and Des Moines have been closed and consolidated with Omaha, although, sub-offices remain open in both cities. Parts of Oklahoma and Arkansas previously assigned to the Kansas City sales district have been transferred to Houston.

Hamilton in New Post

Robert J. Hamilton, Jr. has been appointed advertising manager of General Dyestuff Corp., it was announced last month by S. H. Williams, vice-president and general sales manager of the corporation. Mr. Hamilton handles advertising for both General Dyestuff and its Antara Chemicals Division, including trade publications, direct mail, trade shows and exhibits, pubilicity and promotional work, and the production of individual product literature including pattern cards, circulars, catalogs and brochures.

Fritzsche Opens New Plant

F. H. Leonhardt, president of Fritzsche Brothers, Inc., New York, officiated recently at the opening of the essential oil company's new building in Toronto, Canada. The facilities provide greater space for administration, laboratory and production than the former plant in the same city. After a tour of inspection, Mr. Leonhardt, his son and Joseph A. Huisking, vice-president, tendered an appreciation dinner to all of the employes for their aid in the process of moving from the company's former location.

Sues Schwegmann

An injunction was sought recently against Schwegmann Brothers Giant Supermarkets, Inc., New Orleans, in an action charging failure to observe the fair trade minimum prices established by the Pepsodent Division of Lever Brothers Co., New York, under the Louisiana Fair Trade Law. The action was brought in the Federal District Court in New Orleans and was announced by Charles T. Lipscomb, Jr., president of Pepsodent. The suit asked that Schwegmann be enjoined from selling Pepsodent products below minimum prices.

Pepsodent took similar action against Schwegmann in 1950 and obtained a preliminary injunction which was necessarily set aside as a result of the holding of the U. S. Supreme Court, in another case, that the federal Miller-Tydings Act then in effect was not applicable to non-signers of fair trade contracts. Subsequently, in July, 1952, Congress enacted the McGuire Act which permits the enforcement of state laws against non-signers as well as signers of fair trade contracts. The present action was brought under a Louisiana statute dating back to 1936.

Similar action against Schwegmann has been taken by Colgate-Palmolive-Peet Co., Jersey City, N. J.

Newest addition to the line of toilet soaps made by Allen B. Wrisley Co., Chicago, is new "Honey and Almond" soap, a blend of emollient oils in this traditional Wrisley product. Twelve cakes in attractive box retail for $1.49.

Fact to Remember

WHETHER SUPPLY IS LONG OR SHORT...

Westvaco®
CHEMICALS
TRADE MARK

is the Only integrated producer of all these basic ingredients for soapers

CAUSTIC SODA

Liquid 50% Standard and Rayon Grades
Liquid 70-73% Standard Grade, Flake and Solid, 76% Na_2O

CAUSTIC POTASH

45% Liquid, Flake and Solid

SODA ASH

Light and Dense

Sodium Sesquicarbonate
Acid Sodium Pyrophosphate
Disodium Phosphate
Monosodium Phosphate
Sodium Tripolyphosphate
Tetrasodium Pyrophosphate
Phosphated Caustic Soda
Chlorinated Phosphate
Dipotassium Phosphate
Monopotassium Phosphate
Potassium Phosphate Liquor
Tetrapotassium Pyrophosphate
Tripotassium Phosphate

Mixtures containing phosphates, alkalis, detergents, etc., formulated to order.

With basic, growing Alkali and elemental Phosphorus production, Westvaco can give you the kind of quality and service on which you can build your business—in good times and bad.

You'll get delivery "as promised", practical Technical Service on formulations, handling, etc., and a friendly interest by men who can give you a prompt, concise answer on your alkali-phosphate or dry mixture requirements.

Contract or spot, it pays to check Westvaco first!

WESTVACO CHEMICAL DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
161 EAST 42nd STREET, NEW YORK 17, N. Y.
CHARLOTTE, N. C. • CHICAGO, ILL. • CINCINNATI, OHIO • CLEVELAND, OHIO
DENVER, COLO. • LOS ANGELES, CALIF. • NEWARK, CALIF. • PHILADELPHIA, PA.
POCATELLO, IDAHO • ST. LOUIS, MO. • VANCOUVER, WASH.

fmc

Procter & Gamble Net Up

Net income of $24,101,835 or $2.50 per share for the six months ended Dec. 31 was announced recently by Procter & Gamble Co., Cincinnati. This compares with a net profit reported for the same period in 1951 of $22,915,903 or $2.37 a share. Net profit before taxes was $56,366,835, a $5 million increase over 1951's total of $50,023,903. Net profit for the quarter ended Sept. 30 was $12,637,208 or $1.31 per share, in contrast to $11,772,504 or $1.22 per share in the like 1951 quarter.

DCAT Dinner March 5

Lloyd I. Volckening, DCAT chairman, recently appointed the heads of committees for the forthcoming 27th annual dinner of the Drug, Chemical and Allied Trades Section, New York Board of Trade, Inc., to be held on March 5, 1953, at the Waldorf-Astoria Hotel.

The following members were appointed to head committees: dinner program—Charles M. Macauley, Charles M. Macauley & Associates, chairman, Howard B. Fonda, Burroughs Wellcome & Co., vice-chairman; honor guests—Claude A. Hanford, Pharmaco, Inc., chairman, James G. Flanagan, S. B. Penick & Co., and Fred G. Singer, E. I. duPont de Nemours & Co., vice-chairmen; dinner publicity—Murray Breese, Murray Breese Associates, chairman, William W. Huisking, Charles L. Huisking & Co., vice-chairman; dinner reception—J. David Hayden, R. P. Scherer Corp., chairman, Ralph A. Clark, J. T. Baker Chemical Co., and Hugh S. Crosson, McKesson & Robbins, Inc., vice-chairman; dinner fellowship—Sydney N. Stokes, Merck & Co., chairman, Stephen F. Urban, E. R. Squibb & Sons, and W. Boyd O'Connor, Ayerst, McKenna & Harrison, vice-chairman.

New Trichlorobenzenes

Separation of the pure isomers 1,2,2-trichlorobenzene, 1,2,4-trichlorobenzene, and 1,3,5-trichlorobenzene and their availability in experimental quantities in a purity range of 99 per cent or better was announced recently by A. B. Chadwick, president of the Solvay Process Division, Allied Chemical & Dye Corp., New York. Some of the variations between the isomers have been used in laboratory work on fungicides and rodent repellents. The pure isomers, according to the manufacturer, are expected to find use in the preparation of bactericidal soaps and solutions, as well as in other industrial fields. Working samples of the three trichlorobenzenes and technical data are available.

High Boiling Phenols

High boiling phenols, a product of coal hydrogenation, is now available in tank car quantities, according to a recent release by Carbide and Carbon Chemicals Co., a division of Union Carbide and Carbon Corp., New York. High boiling phenols may be used as an intermediate in the manufacture of phenolic resins, particularly for surface coatings that have superior chemical, alkali, and soap resistance, and phenolic dyestuffs. Also, it is used in chemical syntheses where ring substitution on a phenol is indicated. Carbide also suggests that high boiling phenols be tested for uses typical of cresylic acids. These include preparations of mercerizing penetrants, metal cleaners, cresylic-type disinfectants, pharmaceutical products, oil demulsifiers, oil refining agents, flotation reagents, dye assistants, dye fixatives, preservatives, and scouring agents.

Sponge Plant at Capacity

Production of cellulose sponges at the Columbia, Tenn. plant of E. I. du Pont de Nemours & Co., Wilmington, Del. is now at full operation, it was announced recently by Charles A. Perry, plant manager. The Columbia plant was set up to meet the demand for cellulose sponges which has increased steadily since Du Pont introduced them in 1936. Since then the market has been broadened to the extent that the physical volume of cellulose sponges in 1952 exceeded the volume of all sponges, both natural and man-made, sold in 1936, by an estimated 71 per cent.

The new unit at Columbia adds a third Du Pont sponge shipping point, the other plants being located in Buffalo, N. Y., and Los Angeles.

New Hardison Operation

A new operation for the blending and packaging of insecticides was set up recently by the Hardison Seed Co., Nashville, Tenn. The unit was established as Insecticides Co., Nashville, a wholly controlled subsidiary of Hardison.

American Can Movie

"The Miracle of the Can", a 41-minute color motion picture story of the evolution of tin cans from the days of manual production to the modern can-making lines turning out containers at speeds up to 450 a minute, was released recently by American Can Co., New York. The 16-mm movie traces the development of new cans, of new uses for old containers, and of high-speed can-making lines enabling the industry to produce some 33 billion cans a year.

Mill Companies Merge

Potlatch Forests, Inc. of California, Lewiston, Idaho, producers of paper and paper products, is the new firm that has been formed recently in the consolidation of Paper Mills, Inc. and its affiliates, Fern Co. and Protecto Products Co. of Pomona, Calif. Under this consolidation, "Protecto," and other brands manufactured by the former companies remain the same. The general home offices of Potlatch Forest are in Lewiston, Idaho. Officers of the parent organization are: William P. Davis, president; E. E. Cypert, vice-president; and H. L. Torsen, secretary and treasurer. Active management of manufacturing and converting operations at the Pamona plant is in the hands of three, with Louis Clark as sales manager.

Cuts Morpholine Price

A price reduction of approximately ten per cent on morpholine has been announced by Carbide and Carbon Chemicals Co., a division of Union Carbide and Carbon Corp., New York. The new prices for the eastern territory (east of Idaho, Utah and Arizona) is 55.75 cents per pound in less than car load lots in drums, and 53.0 cents per pound in tank cars. For the western territory (west of Montana, Wyoming, Colorado and New Mexico) the price has been set at 56.75 cents per pound in less than car load lots in drums, and 54.0 cents per pound in tank cars.

The price reduction of morpholine has brought about a proportionate reduction in the price of Morlex Corrosion Inhibitor A, used in industrial steam condensate systems.

ALIPALS

ALIPAL CO-433
ALIPAL CO-436

give millions of bubbles at pennies per pound

ALIPALS are new, low-cost, high-foaming liquid surfactants designed for use when high sudsing is required.

ALIPALS immediately suggest themselves in foaming detergents for shampoos, bubble baths, dishwashing and a variety of other household and industrial uses.

ALIPALS are anionic surfactants possessing very good wetting, emulsifying and dispersing properties and are excellent for dedusting and to step up the foaming and cleaning power of industrial detergents.

Compare the cost-performance value of these clear amber liquid ALIPALS.

We invite your inquiries for samples and literature describing these versatile, economical liquid surfactants.

gdc ANTARA

ANTARA® CHEMICALS

DIVISION OF
GENERAL DYESTUFF CORPORATION
435 HUDSON STREET NEW YORK 14, N. Y.

BRANCHES: Boston • Providence • Philadelphia • Charlotte, N. C. • Chicago
Portland, Ore. • San Francisco
IN CANADA: Chemical Developments of Canada Limited, Montreal

Bids and AWARDS

Trio Wins Award

The award on 80,000 pounds of dust control compound in a recent opening for miscellaneous supplies by the Procurement Division of the Veterans Administration, Washington, D. C. was won by Trio Chemical Works, Brooklyn, N. Y., with a bid of 8.7 cents.

Insect Repellent Bid

A recent opening for miscellaneous supplies by Armed Services Medical Procurement Agency, Brooklyn, N. Y., included item 1, 3,400,000 two-ounce units of insect repellent and item 2, 184,355 gallons, for destination a, Tracy; b, Oakland; c, San Antonio; and d, Ogden. Among low bidders were Canadian Commercial Corp., Washington, D. C., item 1, 14.55 cents export, f.o.b. Montreal; 13.2 cents domestic, 14.25 cents export; and Carbide & Carbon Chemical Corp., New York, item 2, destination b, $10.65, c, $10.43; d, $10.65; if wire bound cartons, all $10.65, f.o.b. South Charleston, W. Va. $10.17.

Chlordane Bid

Riverdale Chemical Co., Harvey, Ill., submitted the lowest bid on 2,650 gallons of chlordane concentrate, in a recent opening by Armed Services Medical Procurement Agency, Brooklyn, N. Y., with $3.585, and $3.435 f.o.b. plant.

Metal Cleaner Award

The award on 15,000 gallons of metal cleaner in a recent opening for miscellaneous supplies by MacDill Air Force Base, Fla., went to Carl W. Lindell Co., Jacksonville, Fla., who had submitted a bid $1.287.

FSS Insecticide Bids

In a recent opening for miscellaneous supplies by Federal Supply Service, New York, the following lowest bids were received on item 1, 672 gallons insecticide, 25 percent emulsion concentrate, and item 2, 7,800 pyrethrum aerosol units; item 1, Trio Chemical Works, Brooklyn, N. Y., $1.26; and item 2, Airosol Co., Neodosha, Kans., 47.7 cents.

Floor Wax Award

The award on 1,540 gallons of floor wax in a recent opening for miscellaneous supplies by Federal Supply Service, Dallas, went to Baird & McGuire, Inc., Holbrook, Mass., with a bid of 53 cents on item 1, and $3.60 on item 2.

FSS Bid for Grit Soap

In a recent opening for miscellaneous supplies by Federal Supply Service, Washington, D. C., the lowest bid of 5.692128 cents was submitted by Orford Soap Co., Manchester, Conn., on 26,844 pounds of grit soap.

FSS Soap Bids

A recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C., included 10,128 pounds of soap and 17,040 pounds of soap powder. Lowest bids of 10 cents on item one were submitted by Iowa Soap Co., Burlington, Iowa, and General Soap Co., Chicago; lowest bid of 5.48 cents on item two by Alexander C. Fergusson Co., Philadelphia.

Paradize Wins V.A. Award

Paradize Products Corp., Fairview, N. J., won the award on 72,240 deodorant blocks in a recent opening for miscellaneous supplies by the Procurement Division of the Veterans Administration, Washington, D. C., with a bid of 5.5 cents.

Wrisley Lowest Bidder

A recent opening for miscellaneous supplies by the Armed Services Medical Procurement Agency, Brooklyn, included 28,800 cakes of surgical soap. Allen B. Wrisley Co., Chicago, submitted the lowest bid of 8 cents, and 8.7 cents for export.

FSS Liquid Soap Bid

On 3,360 one-gallon cans of liquid toilet soap in a recent opening for miscellaneous supplies by the Federal Supply Service, New York, the lowest bid of 46 cents was submitted by Trio Chemical Works, Brooklyn.

Low Bid on Detergent

In a recent opening for miscellaneous supplies by Federal Prison Camp, Tucson, Ariz., Western Chemical Co., Phoenix, submitted a low bid of 5.75 cents on washing compound.

P.O. Soap Powder Bid

In a recent opening for miscellaneous supplies by the Post Office Department, Washington, D. C., the lowest bid of 4.5 cents on 37,536 pounds of soap powder was submitted by Spazier Soap & Chemical Co., Santa Monica.

QM Award to Cowles

In a recent opening for miscellaneous supplies by the Quartermaster Purchasing Office, New York, the award on 493,000 pounds of dishwashing compound went to Cowles Chemical Co., Cleveland, which submitted bid of $33.208.

Soap Powder Award

The award on 7,164 cartons of borax soap powder in a recent opening for miscellaneous supplies by Federal Supply Service, Dallas, was won by Pacific Borax Co., Los Angeles, with a bid of 42.165 cents.

Wins FSS Award

York Chemical Co., York, Pa., won the award on 4,100 pounds insecticide with a bid of 31.25 cents, in a recent opening for miscellaneous supplies by Federal Supply Service, Washington, D. C.

FSS Soap Bid

In a recent opening for miscellaneous supplies by Federal Supply Service, New York, Swift & Co., New York, submitted the lowest bid of $8.85 on 96 cases of 500 (each) two-ounce bars of white toilet soap, destination Newark, N. J.

Low Soap Bids

On laundry soap, 75,000 pounds, in a recent opening for miscellaneous supplies by the Post Office, Washington, D. C., the lowest bid of 4.62 cents was submitted by Fitzpat-

(*Turn to Page* 101)

American Distilled Oils

Produced at our Brooklyn Factory

OILS

CLOVE	BALSAM PERU	OPOPONAX
NUTMEG	CELERY	PIMENTO
ORRIS LIQUID, Conc.	GERANIOL	OLIBANUM
STYRAX	CITRONELLOL	SANDALWOOD
CASCARILLA		PATCHOULY

also ***LINALOOL*** • ***CITRAL*** • ***EUGENOL*** • ***RHODINOL***

RESIN LIQUIDS

OLIBANUM		STYRAX
LABDANUM		BALSAM PERU
OPOPONAX		BALSAM TOLU
ORRIS	BENZOIN	TONKA

Essential Oils • *Aromatic Chemicals* • *Perfume Materials* • *Colors*

OFFERING ROSE ABSOLUTE

68 *Years of continuous quality service— suppliers and manufacturers of—*

Essential Oils · Aromatic Materials · Flavors

GEORGE LUEDERS & CO. NEW YORK GL REGISTERED TRADE MARK

GEORGE LUEDERS & CO.

427 WASHINGTON ST., NEW YORK 13, N. Y.

Chicago • San Francisco • Montreal • Philadelphia • Toronto

Established 1885

NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the *Gazette*. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany notice of opposition.

Alabaster — This for soluble cleaner, cleanser, and detergent. Filed May 1, 1951, by Procter & Gamble Co., Cincinnati. Claims use since November 1, 1930.

Casco—This for soluble cleaner, cleanser, and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since November 23, 1889.

Pearline — This for soluble cleaner, cleanser, and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since August 1, 1877.

Rub-No-More—This for soluble cleaner, cleanser, and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since May 1, 1895.

Satine—This for soluble cleaner, cleanser, and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since January 1, 1894.

Selox—This for soluble cleaner, cleanser and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since April 25, 1927.

Sopade—This for soluble cleaner, cleanser, and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since March 31, 1908.

White Crown—This for soluble cleaner, cleanser, and detergent. Filed May 1, 1952, by Procter & Gamble Co., Cincinnati. Claims use since February 1909.

Vinelab—This for rodenticides. Filed March 12, 1952, by Vineland Laboratories, Inc., Landis Township, Cumberland County, N. J. Claims use since November 2, 1951.

Mitran — This for miticide. Filed July 25, 1952, by United Chemical Co., Richmond, Calif. Claims use since April 16, 1951.

Farm Bureau—This for insecticides and fungicides in the form of sprays and dusting powders. Filed May 17, 1952, by Farm Bureau Cooperative Association, Columbus, O. Claims use since January 1, 1942.

Kalso—This for compound for washing dishes, glassware, fruits and vegetables. Filed November 25, 1949, by Wyandotte Chemicals Corp., Wyandotte, Mich. Claims use since April 11, 1949.

Anasep—This for liquid hand soap. Filed February 5, 1951, by Ped-O-Flo Co., Waverly, Ia. Claims use since September 9, 1950.

Vitanize—This for bactericide and fungicide used as additives for dry cleaning products to inhibit the growth of bacteria and molds. Filed February 14, 1951, by Fumol Corp., Long Island City, N. Y. Claims use since April 3, 1950.

Linacreol — This for disinfectant and cleanser combined. Filed February 18, 1952, by West Disinfecting Co., Long Island City, N. Y. Claims use since March 1, 1916.

Cresectol — This for disinfectant and cleanser combined. Filed February 18, 1952, by West Disinfecting Co., Long Island City, N. Y. Claims use since January 1, 1934.

Old Dominion—This for paste and liquid wax for polishing various surfaces. Filed December 18, 1947, by Fletcher Kirkpatrick Perrow, Jr., Hurt, Va. Claims use since January 1933.

Old Patina Polish — This for furniture, woodwork and leather polish. Filed September 5, 1950 by H. Douglas Curry, Santa Barbara, Calif. Claims use since June 1, 1929.

Mercury Compound Formula 55 (and **Formula 77, 5-55, 7-77, 202,** and **OOL**)—These for general household and industrial cleansers. Filed November 22, 1950 by Theobald Industries, Kearny, N. J. Claims use since July 15, 1940.

Rapido—This for liquid preparation for cleaning glass and other surfaces, and temporarily preventing fogging thereof. Filed April 17, 1951 by R & LW Products, Inc., New York. Claims use since February 28, 1951.

Cosmicol — This for shampoo. Filed August 28, 1951 by Jacob B. Bander, New York. Claims use since November 1944.

Wespray—This for liquid floor cleaner. Filed February 18, 1952 by West Disinfecting Co., Long Island City, N. Y. Claims use since January 1, 1928.

Inex—This for cleaning composition for laundry purposes. Filed February 27, 1952 by H. Kohnstamm & Co., New York. Claims use since May 11, 1951.

Lien — This for polish and cleaner for various surfaces. Filed December 24, 1949 by Lien Chemical Co., Franklin Park, Ill. Claims use since August 1, 1946.

Sta-Brite—This for polishing waxes. Filed May 11, 1950 by Templar Oil Products Co., South River, N. J. Claims use since 1927.

O-B—This for floor wax. Filed December 7, 1951 by Central O-B Products Co., Buffalo, N. Y. Claims use since October 1931.

Emulsol—This for surface active agents, etc. Filed February 16, 1951 by Emulsol Corp., Chicago. Claims use since August 15, 1949.

Ratwar—This for rat poison. Filed September 27, 1951 by Lanair Co., Chicago. Claims use since November 3, 1950.

Unek—This for pesticidal preparations. Filed February 8, 1952 by Unek Products Co., Oconomowoc, Wis. Claims use since on or about November 16, 1951.

West Bouqet—This for liquid spray deodorant for industrial use. Filed February 18, 1952 by West Disinfecting Co., Long Island City, N. Y. Claims use since January 1, 1928.

Super Larvex—This for insecticide and mothproofing composition. Filed April 1, 1952 by Zonite Products Corp., New York. Claims use since February 20, 1952.

Solium—This for soap. Filed August 25, 1950 by Lever Brothers Co., New York. Claims use since August 15, 1950.

Hyself—This for laundry soap. Filed March 28, 1951 by Armour Co., Chicago. Claims use since February. 12, 1951.

Kixo—This for paste soap for cleaning enamel ware. Filed October 12, 1951 by John T. Stanley Co., New York. Claims use since September 19, 1951.

Savopine — This for combined liquid cleanser, disinfectant, and deodorant. Filed Febraury 18, 1952 by West Disinfecting Co., Long Island City, N. Y. Claims use since January 1, 1931.

Wedico — This for combined liquid cleanser, disinfectant, and deodorant. Filed February 18, 1952 by West Disinfecting Co., Long Island City, N. Y. Claims use since January 1, 1914.

Glowyn—This for laundry soaps and alkali compound detergent for laundering. Filed February 21, 1952 by Gold Par Products Co., New York. Claims use since February 4, 1952.

Du-Mor—This for combination cleaning and polishing agent for metal parts comprising a silicone resin and a liquid organic carrier sold primarily for use in cleaning and polishing automobiles, silverware, etc. Filed November 4, 1950 by Wurdack Chemical Co., St. Louis. Claims use since July 22, 1950.

Delta — This for disinfectant. Filed September 3, 1952 by Ernest E. Reich, New Orleans. Claims use since June 11, 1945.

Three Little Squirts—This for liquid laundry soap. Filed December 31, 1949 by Towsley Inc., Indianapolis. Claims use since September 7, 1949.

Neet — This for concentrated soapless dirt solvent consisting of a

(*Turn to Page 157*)

A NEWCOMER you'll want to investigate

An All-Vegetable Oleic Acid With Exceptional Stability.

Send for your sample of CEN-OLEIC #1040 to make your own evaluation tests.

This new all-vegetable Oleic Acid has a color comparable to White Oleic, with superior color stability. The poly-unsaturate content is very low and results of the Mackey tests show over 6 hours to reach 105°C.

Study these specifications with relation to your special Oleic Acid compounding needs:

Iodine Value	84 — 92
Acid Value	191 — 195
Saponification Value	192 — 196
Titre °C	15 — 20
Color (Lovibond 5¼")	15 Y/3R max.

OTHER CENTURY OLEIC ACIDS

Century 1030 — White Oleic (U.S.P.)	Titre 3 — 5°C
Century 1020 — White Oleic (U.S.P.)	Titre 8 — 10°C
Century 1005 — Distilled Oleic	Titre 3 — 5°C
Century 1010 — Distilled Oleic	Titre 8 — 10°C

CENTURY BRAND

W. C. HARDESTY CO., INC.

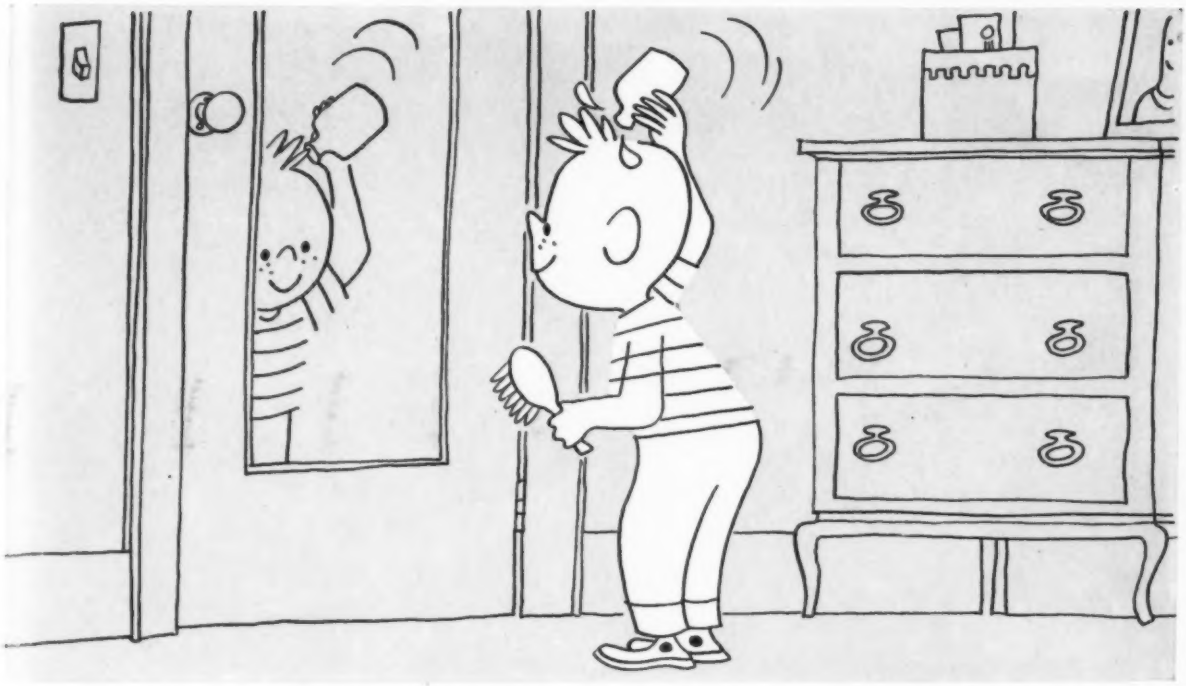
Century Stearic Acid Products, Inc.

41 East 42nd Street, New York 17, N. Y.

PLANT: DOVER, OHIO

IN CANADA: W. C. HARDESTY CO. OF CANADA LTD., TORONTO

When a man's a lady's man



Norda helps

The fathers of many a little shaver owe quite a debt to Norda. Some of the most popular men's toiletries are made with Norda scents and odors.

The ladies, of course, have depended for years and years on cosmetic and beauty preparations made more alluring by Norda fragrances, shades, and colors. As you probably know, Norda research and achievements have made it possible for many leading makers of perfumes, colognes, lotions, lipsticks, powders—all cosmetics—to create some of their outstanding successes.

Norda makes good scents. Norda is known for that honest statement. *Norda was the first ever to talk sales scents with you.* So talk over your problems with Norda. Send for Norda samples and test them. Won't you do it today?

Norda

ESSENTIAL OIL & CHEMICAL COMPANY, INC.
601 West 26th Street, New York 1, N. Y.

CHICAGO • LOS ANGELES • SAN FRANCISCO • ST. PAUL • DALLAS • MONTREAL • TORONTO • HAVANA • LONDON • PARIS • GRASSE

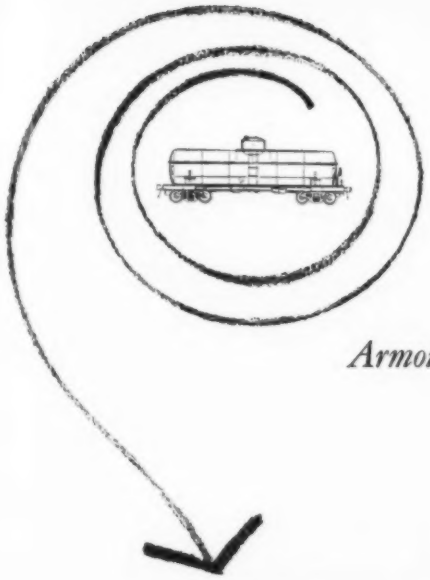
S O A P P E R F U M E S

Durable
Distinctive
Dependable

POLAK & SCHWARZ

NEW YORK · CHICAGO · LOS ANGELES · TORONTO

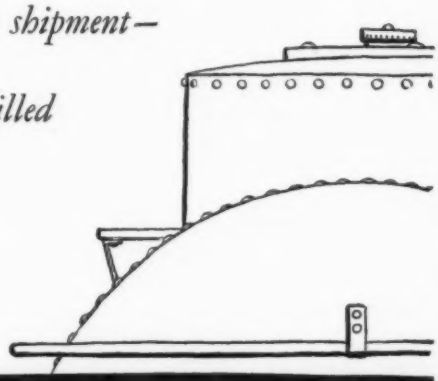
PERFUMERY SPECIALTIES · ESSENTIAL OILS · AROMATIC CHEMICALS



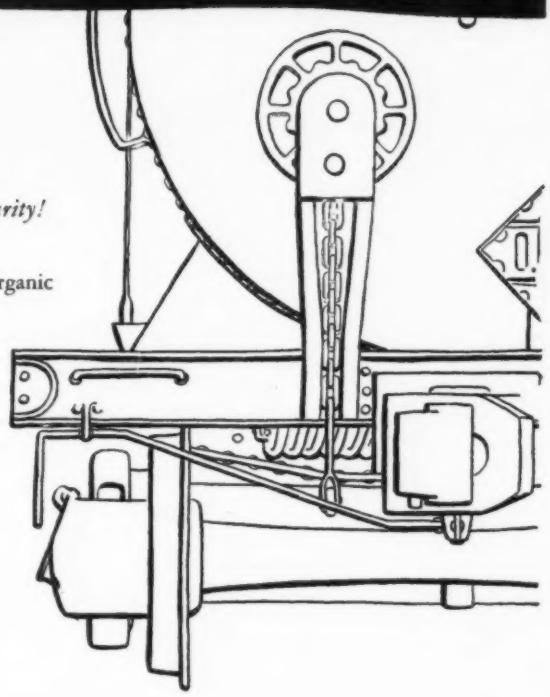
available now in tank car quantities—

for immediate shipment—

Armour's fractionally distilled



High Purity Myristic Acid



Neo-Fat® 14 — 94% myristic acid content — a new high in purity!

The availability of Armour's Neo-Fat 14 (formerly 13) provides a new, high purity raw material for synthesis of many organic compounds. Myristic acid and its derivatives are used in detergents, dyes, textiles, wetting agents, lubricating oils and greases, and for many other applications.

Neo-Fat 14 offers you not only extremely high purity, but also these other specifications: 0.2% moisture content, 0.2% unsaponifiable content, color of 1R to 10Y (Lovibond 5¼"), titer of 48-52, iodine value of 1, and acid value of 243 to 249.

Neo-Fat 14 is available in flake form in 50-pound multiwall bags and in aluminum tank cars. Write today for further information and current price quotations.

ARMOUR CHEMICAL DIVISION

Armour and Company • 1355 West 31st St. • Chicago 9, Ill.

SOLD.....by a finer fragrance!

A search is constantly on . . . a search for that rare scent that sustains its full, fresh fragrance for the magic moment when product and purchaser meet over the counter. Verona research has developed a line of fine chemical specialties which have *proven* themselves decisively in the refinement of many perfumes. Try as little as a fraction of 1% of the products listed below in your present fragrance . . . *Note the "before and after" effect!*

- **VERONOL** . . . . . A single chemical of great power used to achieve the aldehydic top note.
- **CYCLAMAL** . . . . . The accepted raw material for producing that clean, floral fragrance in all types of products, from soaps to the most expensive perfumes.
- **CUMIN KETONE** . . To impart the natural floral note to your compositions.
- **RESEDALIA** . . . . . An acetal; as true a base for Reseda Mignonette types as is Phenyl Ethyl Alcohol for Rose. Combined with the Ionones, it produces very interesting and different effects.

Sole Representatives in the United States for J. AND E. SOZIO, Grasse, France
Resinoides • Natural Absolutes • Essential Oils

USE VERONA PRODUCTS TO BUILD SALES FOR *Your* PRODUCTS

AROMATICS DIVISION • VERONA CHEMICAL CO. 26 Verona Avenue, Newark, N. J. • 208 North Wells Street, Chicago, Ill.

investigate

if you are a compounder of

DETERGENTS FOR

DAIRIES
RESTAURANTS
BOTTLING PLANTS
LAUNDERETTES
CAR WASHING
METAL WORKING
DRY CLEANING
RUG SHAMPOOING

COSMETICS

CLEANSING CREAMS
VANISHING CREAMS
DEODORANTS
LOTIONS
LIPSTICKS
PERFUMES
SHAMPOOS–LIQUID OR CREAM

FIREFIGHTING SOLUTIONS
FRUIT CLEANSERS
HERBICIDES
INSECTICIDES
TEXTILE AUXILIARIES

let Warwick help solve your chemical problem!

Warwick offers Alkyl Aryl Sulfonates, Lauryl Sulfates, Alkylolamides, Alkylamide Sulfonates, Alkyl Naphthalene Sulfonates, Imidazolines. Mail coupon for latest brochure describing Warwick wetting agents, dispersants, emulsifiers, stabilizers, foaming agents, anti-foams, and detergents.

industrial surfactants
Warwick Chemical Company
Division Sun Chemical Corporation
10th Street and 44th Avenue
Long Island City, New York

Please mail copy of your latest SURFACTANTS brochure to:

NAME_____

TITLE_____

FIRM_____

ADDRESS_____

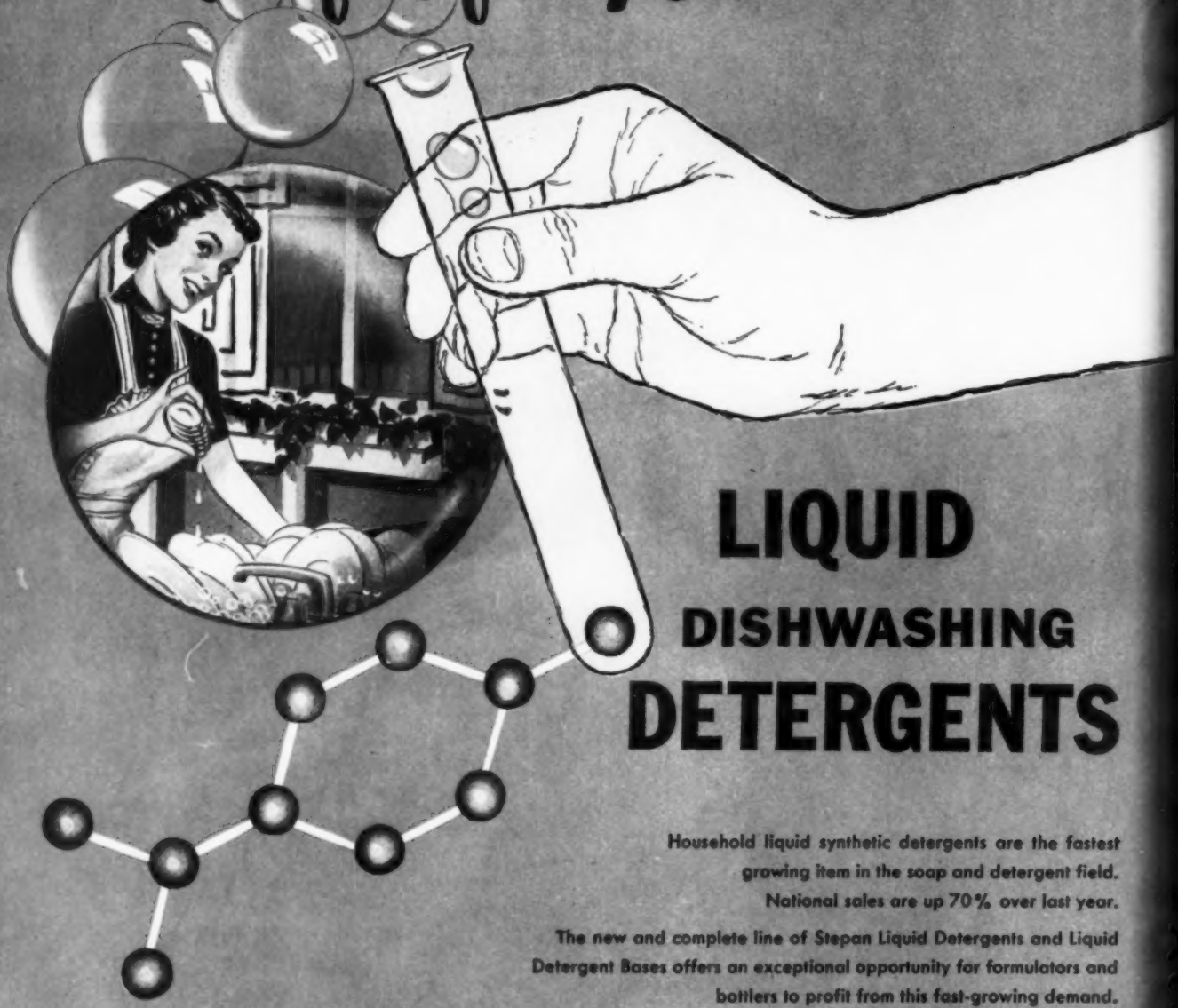
CITY_____ ZONE_____ STATE_____

We are interested in chemicals for:

_____

WARWICK CHEMICAL COMPANY, DIVISION Sun CHEMICAL CORPORATION 10TH STREET AND 44TH AVENUE, LONG ISLAND CITY, NEW YORK

Profits for You...



LIQUID DISHWASHING DETERGENTS

Household liquid synthetic detergents are the fastest growing item in the soap and detergent field. National sales are up 70% over last year.

The new and complete line of Stepan Liquid Detergents and Liquid Detergent Bases offers an exceptional opportunity for formulators and bottlers to profit from this fast-growing demand.

Ease of compounding and perfuming — unusually high percentage of active — low price, all are factors of Stepan Liquid Detergents that provide an excellent margin for you.

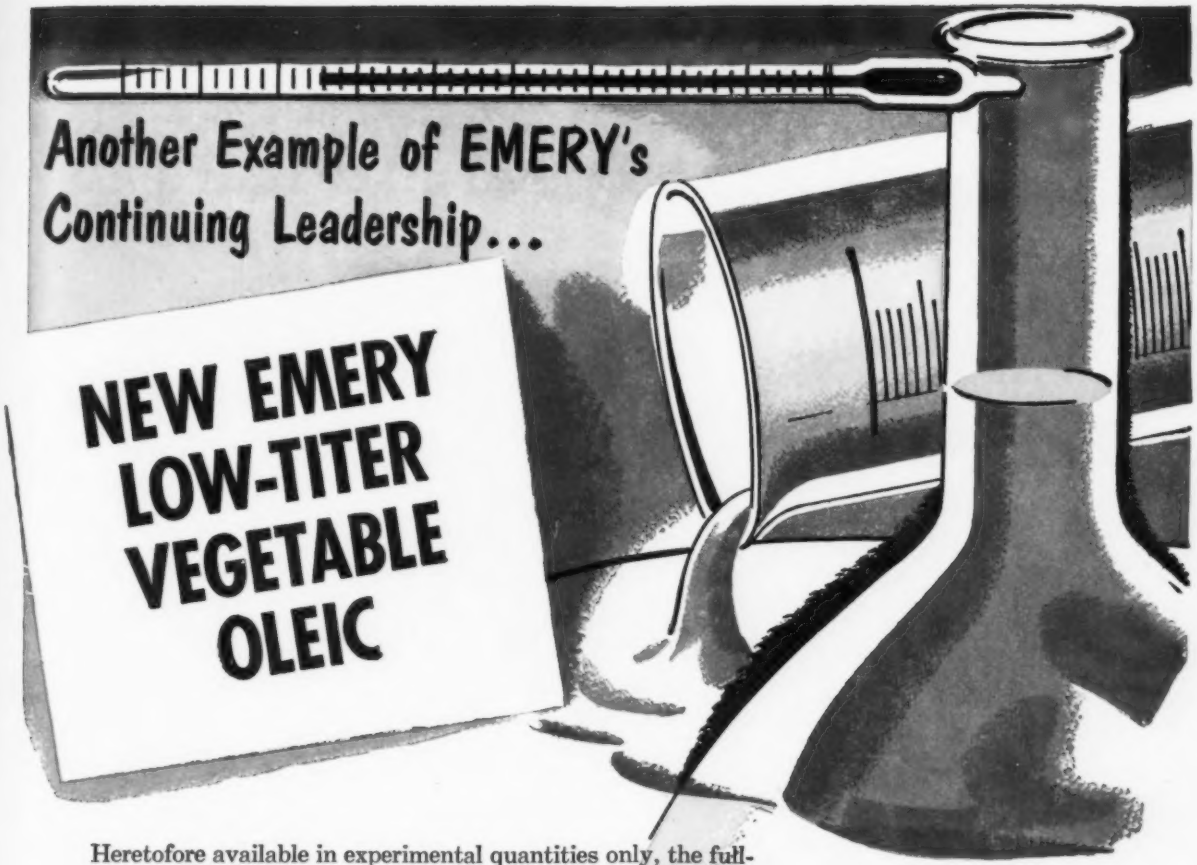
You may be particularly interested in our new low-salt DS-60. It's really new and different. In addition to its uses as a liquid dishwashing detergent base, it is also ideal as a base for scrub soaps, dairy cleaning compounds, or any other cleaning compound where economy, superior detergency, and wetting action are desired.

Write today for complete information and prices.

The Chemicals of Tomorrow . . . Today

THE STEPAN CHEMICAL CO.

3250 So. Kedzie Avenue
Chicago 23, Illinois



Another Example of EMERY's Continuing Leadership...

NEW EMERY LOW-TITER VEGETABLE OLEIC

Heretofore available in experimental quantities only, the full-scale production of Emersol 241 Vegetable Elaine opens many new applications where low titer is essential. Specifications of this all-vegetable oleic acid are as follows:

Iodine Value	85-95
Titer, °C	5-10
Acid Value	191-197
Saponification Value	192-198
Color (Lovibond 5¼" cell)	15Y/3R Max.

This new product, a low-titer counterpart of Emersol 240 Vegetable Elaine, is the tenth oleic acid in the Emery line.

EMERSOL VEGETABLE ELAINES are superior replacements for olive oil foots in soaps and shampoos and so-called "castile" soaps. Check Emersols 240 and 241 in your formulation today!

A complete selection of high-quality, high-stability Emersol Elaines assures you of the best oleic acid for your specific application.

DISTILLED GRADES

Emersol 210 Elaine
Emersol 211 Low-Titer Elaine
Emersol 212 Elaine
Emersol 220 White Elaine
Emersol 221 Low-Titer White Elaine
Emersol 233 LL Elaine
Emersol 240 Vegetable Elaine
Emersol 241 Vegetable Elaine

UNDISTILLED GRADES

Emersol 200 Saponified Red Oil
Emersol 201 Saponified Red Oil

Mail coupon for complete information on Emery Vegetable Elaines.

Emery

Fatty Acids & Derivatives
Plastolein Plasticizers
Twitchell Oils, Emulsifiers

Emery Industries, Inc., Carew Tower, Cincinnati 2, Ohio

EXPORT: 5035 RCA Bldg., New York 20, N.Y.

Branch Offices:
3002 Woolworth Bldg., New York 7, N. Y.
401 N. Broad St., Philadelphia 8, Pa.
187 Perry St., Lowell, Mass.
221 N. LaSalle St., Chicago 1, Ill.
420 Market St., San Francisco 11, Calif.

Representatives:
Schibley & Ossmann, Inc.
33 Public Square,
Cleveland 13, Ohio
Ecclestone Chemical Co.
2673 Guoin,
Detroit 7, Mich.
Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

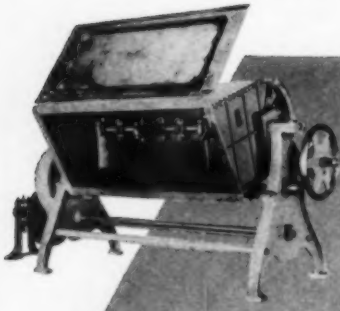
Emery Industries, Inc.
Dept. S-2, Carew Tower
Cincinnati 2, Ohio

Please send me complete information on Emersol Vegetable Oleic Acids.

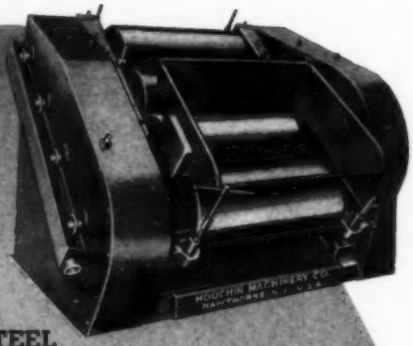
*Name*_____
*Title*_____
*Company*_____
*Street*_____
*City*_____ *State*_____

6 MACHINES IMPORTANT IN—

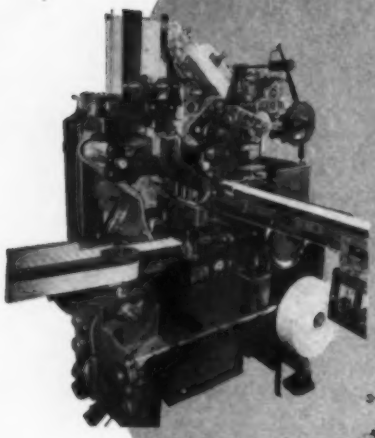
SOAP MAKING



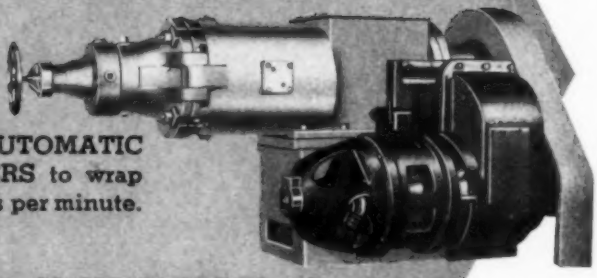
TILTING AMALGAMATOR
Other types available.



TYPE E STEEL ROLL MILL
With 18" x 40" water cooled rolls.

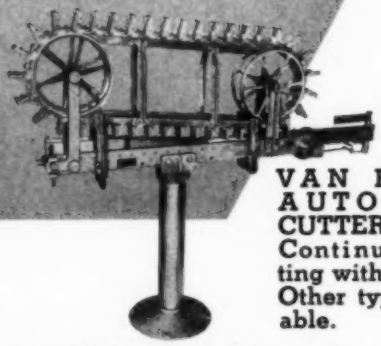


VAN BUREN AUTOMATIC SOAP WRAPPERS to wrap 200 to 300 cakes per minute.



GIANT PLODDER—Capacity 4000 to 6000 pounds per hour.

SAFETY AIR PRESS
Easier to operate. Produces consistently uniform cakes.



VAN BUREN AUTOMATIC CUTTER—
Continuous cutting without scrap. Other types available.

Houchin soap making machines include every machine required for modern soap manufacture. Available individually or in complete production ranges.

HOUCHIN MACHINERY CO., INC.

Sixth & Van Winkle Avenues — Hawthorne, New Jersey, U. S. A.

Manufacturers of Soap Making Machinery for over Three-Quarters of a Century

Production of Sulfonates

SULPHONATION of alkyl benzene supplies the major proportion of synthetic detergents, according to an article by Helmut Stuepel in *Soap, Perfumery & Cosmetics* for December, 1952. There are three theories held in connection with the mechanism of sulphonation:

1. Mechanism of free radicals, whereby an ion is formed by oxidation of the nucleus and a proton separates off with formation of an aryl radical, and this proton combines with other free radicals: $Ar+SO_3H \rightarrow ArSO_3H$.

2. Addition of a polar form of the nucleus and the cation and anion of the sulfuric acid.

3. Cationic mechanism, whereby sulfur trioxide reacts as a molecule or as the cation SO_3H+. Addition occurs when the negative centre of the polarized hydrocarbon is attacked, and it is accompanied by the ejection of a proton from the nuclear system.

Technically there is a tendency towards continuous sulfonation, use of SO_3 itself or in solvents, as well as the introduction of the sulfo group by sulfochlorination or sulfo-oxidation into hydrophobic long chains. Sulfonation with sulfuric acid is one of the foremost practical methods.

The constitution of the alkyl benzene has a decisive effect on the qualitative and quantitative yield of the reaction. Alkyl benzene, alkylate, alkylated aromatic or dodecyl benzene are the usual commercial terms for substituted benzene, the chain of which has 10-15 carbon atoms. At best, 80 percent of the product is the mono-alkyl derivative.

Methods of sulfonation differ according to the desired detergent active material content of the final product. If the sulfonated mass is neutralized as a whole, a product of approximately 40 percent is formed, but if a water wash with sulfuric acid separation is included, the product will be approximately 80 percent. The latter process is preferable.

Amount and concentration of the sulfonating medium depend upon temperature. (Table 1) Sulfonation with fuming sulfuric acid (20%) is recommended because it is economical and produces light sulfonates.

The color of the sulfonate depends not only on the alkylate (bromine number) and the sulfonation conditions, but also to a large extent on the iron content of the sulfuric acid, the lye and the bleaching agent. Acid with not more than 0.01 percent iron content should be used. Larger amounts of iron result in yellowish sulfonates. If sulfonated masses are left standing the color becomes darker. Only a 97 to 98 percent reaction takes place in the sulfonator, leaving unsulfonated free oil, which deteriorates by secondary reaction. (Table 2)

The semi-continuous method of production is recommended for plants with a daily output exceeding five tons of detergent active material. Calorific data are given per square meter of cooling surface, and hourly conversion of alkane is related to the difference in temperature of the reaction mass and the cooling medium. (Table 3)

Fully continuous sulfonation by overflow is not as common as the

Table 1
Reaction Conditions and H_2SO_4 Concentration

Concentration of Sulfuric Acid	Quantity Acid to 1 part Alkylate	Total SO_3 to 1 part Alkylate	Maximum Sulfonation Temp.	Duration (hours) of Sulfonation
98% H_2SO_4	1.66/1	4.08/1	65°C.	3
100% H_2SO_4	1.40/1	3.50/1	50°C.	3
104.5 H_2SO_4	1.25/1	3.27/1	25°C.	3

Table 2
Effect of the Standing Period on Unsulfonated Material and Color

Standing Time (in minutes)	% Unsulfonated	Color (KLETT) in 1% Active Material-solution
0	3.27	5
30	2.46	11
60	2.08	13
90	1.31	15
120	2.08	18
150	2.20	20
180	2.23	23

Table 3
Calorific Data

Process	cal./g. Alkylate	kg. alkylate per 1 m^2 freezed area 1°C. Δ t/hour
Sulfonation	125	1.55
Washing (10% H_2O)	80	3.96
Neutralization	—	1.26

PROCESS TESTING LABORATORY

Test and get the facts! Lehmann maintains mill equipment in its testing laboratory for the use of its customers in obtaining production data through an engineering approach.

The Engineering Approach makes the difference in LEHMANN ROLLER MILLS

The list of users of Lehmann Roller Mills reads like the "Blue Book" of the Soap, Paint, Ink and Chocolate Industries. This preferment of Lehmann equipment by industrial leaders stems from sound appreciation of values in production equipment. These values are weighed in terms of quality of product, capacity to produce, operating cost and ability to perform constantly under all conditions.

Production machinery that offers such advantages can be created only by a company with seasoned experience in the industries it serves. Lehmann has this background. More than a century old, it has always been the first to adopt better methods and designs.

A sound engineering approach to development, design, procurement of materials, manufacture and service, has made Lehmann Roller Mills prototypes of improving technology in their field.

If you contemplate changes in your production that may involve your use of roller mills, the Lehmann Engineering Department is at your service.

The Lehmann 912 SA Five Roll Finishing Mill.

LEHMANN®

J. M. LEHMANN COMPANY, Inc.

MAIN OFFICE AND FACTORY: 548 **NEW YORK AVE., LYNDHURST, N. J.**

Table 4
Yield and Composition of Neutralized Paste

Analyses of Paste	40% Product	80-85% Product
Active Matter Content	82.5	83.2
Water	56.0	48.0
Sodium sulphate/solids content	60.0	15.0
Unsulfonated/solids content	0.8	1.6
Active Matter/Solids Content	40.0	84.0
Solids Content	44.0	52.0
Yields	40% Product	80-85% Product
Active matter (analytical)	82.5	83.2
Active matter (theoretical)	85.0	85.0
% Yield	97.0	98.2

semi-continuous process. Centrifugal separation of non-reacted alkylate is only of theoretical interest.

The composition of the slurry or neutralization paste is fairly similar in both working methods, and a typical analysis is given. (Table 4)

—— • ——

Detergents Effect on Skin

THE irritating effect of alkaline soap has been explained by its attack on the acid and fatty coatings of the skin, and has been exaggerated for a long time. It has been shown that the pH of the skin cannot be shifted into the alkaline region by washing with soap, and that any inroads made upon the acid coating are restored within one to one and one half hour. This period may even be shortened to 30 minutes by copious rinsing with water after washing. The irritant character of a soap is not determined by the amount of alkali present. Soap fatty acids of low molecular weight irritate the skin at a relatively low pH (7 and less) while those of high molecular weight are practically non-irritating when brought by suitable additions to a pH of 9.

Soap has a swelling effect on the skin. While the cells of a healthy epithelium are closely knit, those of skin which has been loosened by disease are especially prone to swelling. But the swelling effect of a soap solution can become particularly unpleasant when it coincides with continual or occupational contact with alkali. The swollen skin gives off the absorbed water and becomes dry and cracked, open to penetration by chemicals and irritants. These problems can be minimized by choice of cleansing methods adapted to the industry in question.

Many cases of soap dermatitis are cases of multiple damage. In the trichlorethylene department of a rather large metal-working factory, where many workers suffered from folliculitis and bacterial dermatitis of the chin, the difficulty was eliminated by introduction of a non-irritant shaving cream. Of two factors necessary to cause the skin trouble one had been successfully removed.

Synthetic detergents, such as fatty alcohol sulfates, fatty acid condensation products, sulfonated oils, protein-fatty acid condensation products, etc., are slightly acid or neutral in the finished product. They have little effect on the acid coating of the skin, and do not cause any swelling of the skin protein. They exhibit an astringent or slight tanning effect. Like any other good detergent, they cause partial defatting of the skin surface, even more so than soap. Yet the main factor in the action of a wetting agent on the skin is its firm adhesion to the surface and formation of protein salts. Many synthetic detergents spread on the skin as monomolecular films, and on subsequent contact with water they act as emulsifiers for the skin fat still present, which is thus rinsed away and removed, in some cases to the point of complete elimination. This results in a dry, rough skin with horny scales turned up sideways. Skin of this type is more difficult to wash.

Wetting agents with considerable penetrating power can mop up soil like a sponge and redeposit it adsorptively. The effect produced on the surface of the skin by such detergents does not end with these physicochemical surface phenomena, but includes chemical reactions such as formation of protein salts, which lead to a more or less fundamental denaturing of the epithelium. Such detergents, used as shampoos do, no doubt, free the scalp and hair from scales in the first instance, and even loosen the hairs, but they must inevitably give rise, in a short time, to further scale formation, owing to their denaturing action.

The irritant qualities of the basic components of washing powders (alkyl-aryl sulfonates) are scarcely observable in usual epidermal tests. The temperature of the detergent solution has been found to play an important part. But even after irradiation of the applied patches with infra-red light the number of positive results did not increase. It is therefore assumed that mechanical irritation added to the frequently subliminal chemical and thermal irritation, causes a rash and finally leads to a manifest skin injury. Practical washing experiments showed much more clearly differences in the ability to tolerate different washing powders and their raw materials.

Washing powder eczema and dermatitis were particularly frequent in Germany during and after the war when relatively small concentrations of an alkyl aryl sulfonate were used as the active component, with a liberal addition of soda and silicate. Persons with seborrhoeic tendencies, a group known to be hypersensitive to alkalis, were particularly susceptible.

One of the oldest methods adopted to reduce incidence of detergent dermatitis is the superfatting of soap, for instance with lanolin. The majority of baby soaps are superfatted in this way. The method has been

for high speed production of synthetic detergents of uniform quality...

R.T.R.* Uni-Blender

COMPOUNDING PLANT
with skip loader

**R.T.R.— Ready-To-Run*

Designed specifically for compounding and packaging dry alkaline and synthetic detergent products, this complete Ready-to-Run plant provides continuous production, of consistently uniform quality, of the following: *Laundry products, dishwashing compounds, dairy cleaners, metal cleaners, scouring powders, water treatment compounds, and many other products!*

This factory-tested unit incorporates a 2-speed mixer drive that eliminates need for a holding bin, yet retains all of the bin's advantages without its added cost or excessive headroom requirements. Besides thorough dispersion of materials, the unit also provides for preserving the desired physical form of the product during bagging operations.

FEATURES OF THIS R.T.R. UNI-BLENDER COMPOUNDING PLANT INCLUDE:

- ★ ½-ton skiploader
- ★ 56 cu. ft. (425 gals.) improved design ribbon mixer, up to 2000 lbs. capacity. Has removable side panels and hinged top for ease of cleaning.
- ★ Gyratory sifter for removal of large particles and foreign matter.
- ★ Bagging hopper and scale. Automatic valve bag and drum packer optional at extra cost.
- ★ All motors and drives included.
- ★ Requires only 7'x 15' floorspace, 22' headroom.

Write or wire today for complete information

A. E. POULSEN
AND COMPANY
Established in 1939

ENGINEERS AND MANUFACTURERS
Materials processing and materials handling equipment

3305 EAST SLAUSON AVENUE, LOS ANGELES 58, CALIFORNIA

called useless, because the soap, as an oil-in-water emulsifier, envelopes the added fat particles and carries them away before they can become effective. But practical experience has shown that soaps superfatted with lanolin or fatty alcohols are very well tolerated. The skin becomes less dry and rough. Possibly the cholesterol contained in lanolin has something to do with this. Much skin damage can be prevented by standardized methods of manufacture, pH control and uniform raw materials. This enables persons with abnormal or sensitive skins to safely continue using a soap once its suitability has been established.

Two weakly acid wetting agents, with high cleansing power and correspondingly high irritant properties, were introduced in Germany in 1935. A sulfonated oil of the Turkey red oil type was added to the fatty acid condensation product which is the cleansing component of one of these agents. This combination has proved itself satisfactory from a clinical point of view, and the astringent qualities of this detergent might be useful for diseased skins.

In America, Lane and Blank created a detergent containing the non-irritant long-chain fatty acids (palmitic and stearic) together with a high grade sulfonated oleic acid as an additional cleansing component. The more irritating short chain saturated acids (C_{12} and C_{14}) and the unsaturated acids (oleic) were entirely omitted. This solid detergent is claimed to be absolutely non-irritating.

"Satina" is a German protein-fatty acid condensation product. The protein components are obtained from scrap leather, leather cuttings and during the period of shortage, from fish skins. Recently this preparation has been used in combination with soap, which has proved itself satisfactory and easy on the skin. The protein components are intended as a protective colloid which will mitigate the skin-irritating effects of the other components. Moreover, "Satina" contains "Dermolan", a so-called skin protective.

Soap and synthetic combinations are usually marketed as products designed to yield that copious lather which so impresses the user. If the amazing lather produced by short chain irritating fatty acids is combined with a searching, foaming fatty alcohol sulfate, then the effect on the skin is easy to imagine. Some soap and synthetic detergent combinations however may well prove satisfactory both for their washing action and their mildness on the skin.

Know St. John Soap?

Does anybody know the address of E. L. St. John or the St. John Soap & Chemical Co.? The editor is interested in locating Mr. St. John or his firm and would appreciate receiving his address from any person who may know it.

During the period of shortage, industry tried to mitigate the irritant properties of fatty acid soap and detergents by introducing "protectives". These were originally substances of a tannin-like character such as Tactocut and Dulgon. Such a substance is combined by secondary valencies on the surface of the skin like a substantive colorless dye, and thus gives protection against the actual detergent, and especially against the formation of an adherent film of wetting agent of emulsifier. Protective agent 048G is a mixture of mono- and di-esters of a certain fatty acid. As hydrophilic and hydrophobic groups occur side by side in this material, it forms emulsions with water. It clings readily to the skin surface because it is not readily soluble in water. So far 048G has given good results in skin therapy and cosmetics, and has done well in industrial medicine as an additional ingredient of soaps and creams. The choice of suitable protective substances is limited by the anion-active character of ordinary soaps. Thus basic azo dyes and vat dyes might be considered on account of their affinity to the skin, but quite apart from the dyeing they are not applicable because they are cation-active substances.

It has been said that we have copied from the ancients the habits of washing and bathing but not that of anointing. One of the simplest ways of avoiding many kinds of skin damage is a combination of washing and greasing in place of the use of superfatted soaps. This applies especially to greasing the skin before shaving.

Recent research has led to new ideas about the fat coating of the skin. This coating, taken as a whole, is not hydrophobic, even though it contains hydrophobic constituents; on the contrary it is hydrophilic, and the keratin which is presumably protected by the fat coating against wetting is hydrophobic. The free keratin surface of the skin can therefore only be wetted through the fat covering. Substances which promote wetting are extractable by alcohol and water, and are thus not fats. Currently the author in collaboration with others is engaged in the task of developing and trying out certain lecithin-like phosphoric esters, which like skin fat (and 048G) have both hydrophilic and lipophilic qualities. Up to now they have proved to be suitable for addition to soap. W. Schneider, *Soap, Perfumery and Cosmetics*, January, 1953.

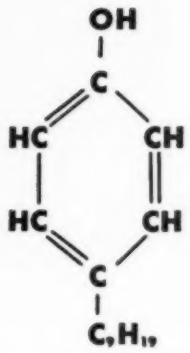
New Emery Booklet

Emery Industries, Inc., Cincinnati has recently issued a booklet describing its 12-Hydroxystearic acid and hydrogenated castor oil. The booklet describes the physical and chemical properties, specifications, and suggested uses of Hyfac 442, the designation for 12-Hydroxystearic Acid and Hyfac 2142, the designation for hydrogenated castor oil. A complete bibliography is also included.

New Steam Generator Unit

A new type of a high pressure steam generator, with closed circulation of steam and condensate, which operates at a temperature of 700 degrees Fahrenheit, was announced recently by Bamag of West Germany. The new package unit designed for an economical heavy duty operation is in successful operation with evaporating and distilling equipment in oils, varnish, glycerine, fatty acids, tar and similar plants. A six-page bulletin with a flow diagram, description and pho-

NONYL PHENOL



Commercial now available in ~~pilot plant~~ quantities

Description:

Jefferson's nonyl phenol is a mixture of monoalkyl phenols, predominantly para substituted and is a clear viscous liquid. The side chains are isomeric branched alkyl radicals. Some physical properties of a representative sample are:

Specific gravity, 20/4°C		0.949
Hydroxyl number		255
Color, Pt-Co scale		200
Refractive index, 20°C		1.5140
Flash point (TOC), °F		300
Pour point, °C		2
Distillation range, °C		
	IBP	290
	5 ml.	293
	95 ml.	297
	EP	301

Suggested Uses:

1. An intermediate for non-ionic detergents
2. A stabilizer for ethyl cellulose
3. A plasticizer for cellulose esters
4. An intermediate for other plasticizers
5. A starting material for production of lubricating oil additives and rubber chemicals
6. An antioxidant

You may secure technical information and samples by writing to Department E.

Jefferson
CHEMICAL COMPANY, INC.
260 MADISON AVENUE, NEW YORK 16, N. Y.

Houston Sales Office: 318 Melrose Building, Houston 2, Texas
Warehouse Stores: Tenafly, New Jersey; Chicago, Illinois; Houston, Texas

Essential Chemicals From Hydrocarbon Sources:

Ethylene Oxide
Ethylene Glycol
Ethylene Dichloride
Diethylene Glycol
Monoethanolamine
Diethanolamine
Triethanolamine
Nonyl Phenol
Morpholine
Ethylene Carbonate
Propylene Carbonate

tographs is available through Bamag's exclusive agents, General Industrial Development Corp., New York.

Issues Metal Cleaner Data

Sodium hydride as a metal cleaner is described in a bulletin issued recently by Ethyl Corp., New York. The hydride removes oxide scale and sand from the surfaces of any metal or alloy which does not react with molten caustic soda and whose properties are not adversely affected at 700°F. This is well below the critical temperature of most steels and alloys. In the process, the articles to be descaled are immersed in a bath of molten caustic soda containing 1½ percent to 2 percent sodium hydride. The hydride is produced by reacting sodium with hydrogen in generator boxes attached to the sides of the bath. Sodium hydride reduces the oxide scale to metal or lower oxides, which are easily removed.

Unlike pickling, hydride descaling removes none of the base metal, causes no pitting, and acts uniformly on crevices and high spots. Thus, according to the manufacturer, finished articles as well as stock metals can be treated. One bath may be used to descale parts made of different metals as well as bimetallic parts.

Resumes Patent Practice

Neson Littel recently announced that he has resumed practice as a patent attorney and solicitor of United States and foreign patents and trademarks under the firm name of Hamond & Littel, New York.

New Sindar Odor Catalog

A new, 20-page catalog dealing with odors for industry was issued recently by Sindar Corp., New York. The catalog also covers germicides, fungicides, stabilizers, anti-oxidants and anti-skinning agents. It classifies the products according to the basic industrial commodities for which they are suitable such as paint, rubber, textiles, glues, plastics and others. Also, a new feature of the catalog is a page devoted exclusively to Odor Types, and seven of the most popular odor types with various Sindar products in each category.

Heavy Duty Gun Nozzles

Spraying Systems Co., Bellwood, Ill., recently introduced a new gun type spray nozzle designated "Gunjet". The new nozzle is engineered for ease in handling and spray adjustment. It is also claimed to offer

a wide range of capacities by low cost interchanging of orifice tips.

Some of the design features offered by the Gunjet are: effective operation at any pressure from 30 to 800 pounds per square inch, and an adjustable spray by turning the handle which gives a complete selection range from a wide angle finely atomized full cone spray, through a full cone spray, to a far reaching straight stream.

New Bulletins on G-11

Five new technical bulletins have just been published by Sindar Corp., New York, on "G-11" brand of hexachlorophene. These bulletins bring to six the number of technical papers released on G-11, the first of the series being Technical Bulletin H-1, "An Annotated Bibliography," which was issued in May 1952. Complete data, and information on the chemical, physical, toxicological and bacteriological properties are given in these new bulletins, each of which contains references to substantiate all information given. The new bulletins are: Chemical and Physical Properties (H-2); Toxicology (H-3); Bacteriological Properties (H-4); Uses in Cosmetics (H-5); and Use in Soaps and Synthetic Detergents (H-6).

Offers New Chromometer

The new Fisher/Tag Saybolt chromometer, an improvement upon the Saybolt chromometer as prescribed in method D-156 of ASTM, has been introduced recently by Fisher Scientific Co., Pittsburgh. Principal feature of the new chromometer is a revolving turret head which eliminates the time-consuming one-at-a-time changes of color discs necessary in older models.

A further change brings the chromometer into line with the new official ASTM specifications for the D-156 method. Comparison tubes in former models had a 15-mm inside diameter. The tubes in the new model have the newly-required inside diameter of 17 mm.

Hydrogenated Castor Oil

"Harwax G", a hydrogenated castor oil, is now available from Canadian production according to a recent announcement by W. C. Hardesty Co. of Canada. "Harwax G" is a hard waxy solid with a high melting point of 180° F., and is soluble in most organic solvents but highly insolvent in water. The main component is the glyceride of 12 hydroxy stearic acid. The hydroxyl group of the component hydroxy stearic acid allows this product to undergo some of the reactions of a fatty alcohol in addition to all the normal reactions of a triglyceride, the company claims. A few of the uses of "Harwax G" are in all purpose greases, polishes and cosmetics.

Odor Control Grows

Airkem, Inc., New York, displayed a cutaway model of a factory indicating the most frequently encountered odor areas and ran an audience participation odor test at the recent National Plant Maintenance Show held in Cleveland recently.

James C. Skully, Airkem's general sales manager said that the firm's distributor sales for 1952 were 25 percent ahead of 1951. Industrial sales gained 75 percent while the company's smoke odor control service increased 65 percent. Space service sales in offices and commercial establishments increased 18 percent and, according to Mr. Skully, still represent the largest dollar volume for most company distributors.

Kreelon CD Pamphlet

A pamphlet was issued recently by Wyandotte Chemicals Corp., Wyandotte, Mich., which defines the benefits and applications of "Kreelon CD," an alkylarylsulfonate based detergent. This four-page pamphlet, fully illustrated, outlines the physical properties, composition, solubility, deter-

Quick-Change artist

VERSATILITY is a big feature of your TRIANGLE Weigher and Sealer

Quickly changes your packaging costs, too — *substantially lower*

Here's the Triangle Model SH Net Weigher and SA Sealer that handles such a wide variety of filling jobs so efficiently and so economically.

Its versatility means you can fill all types of dry soap products, insecticides, cleansers, household chemicals, fertilizers, and the like. You can fill into a wide variety of packages and a wide range of sizes — with quick changeover.

Guaranteed Accuracy

This machine features *guaranteed* accuracy on weights . . . and speedy filling and sealing of containers. Users report *cost savings of several thousand dollars per year.* They say the equipment quickly pays for itself.

Yes, sir. This is a quick change artist you'll applaud. Better take a look at it soon.

TRIANGLE PACKAGE MACHINERY CO.

6635 West Diversey Blvd., Chicago 35, Ill.

SALES OFFICES: New York, Newark, Baltimore, Boston, Atlanta, Dallas, Denver, Los Angeles, Portland, Ore., Montreal, Mexico City

gency, sudsing, and emollient characteristics of "Kreelon CD." The company claims that when the detergent is properly compounded, it offers a 20-70 per cent improvement of soil removal and whiteness retention properties evidenced in the cleaning of cottons. Also, it claims that "Kreelon CD" measurably reduces skin irritations and produces soft, long-lasting suds when used in dishwashing formations. The pamphlet is available upon request.

—— ♦ ——

Back Gets Ethyl Post

Dr. Richard C. Back, entomologist, has recently been appointed to the product development staff of Ethyl Corp., New York. Dr. Back is in charge of agricultural chemicals, and assists in the research and development of agricultural chemicals, including field evaluation. Prior to this, Dr. Back has been in charge of the insecticide phase of an Ethyl-sponsored research project at the Boyce Thompson Institute for Plant Research in Yonkers, N. Y. A native of Washington, D. C., Dr. Back received his B.S. and M.S. degrees in entomology from Cornell University and Iowa State College, and his insect toxicology from Cornell.

—— ♦ ——

Candee to Kinetic

C. C. Candee was recently elected vice-president of Kinetic Dispersion Corp., Buffalo, N. Y., to deal primarily with technical sales of Kady mill applications. Mr. Candee was formerly manager of technical services, pigment division of American Cyanamid Co., New York. He is a chemical engineering graduate of Iowa State University, has studied advanced colloid chemistry at Rutgers University and for the past four years has devoted the major portion of his time to the science of pigment dispersion.

—— ♦ ——

Collins A-D-M Vice-Pres.

Henry W. Collins, vice-president of west coast grain operations for Archer-Daniels-Midland Co., Minneapolis, was elected last month to the company's board of directors at the quarterly meeting of the board. Mr. Collins fills a position created when the board voted to increase its number from 15 to 16 members.

PRODUCTION Clinic

By E. G. Thomssen, Ph.D.

THE duplication of a competitor's product is a problem with which the chemist or production manager of a company manufacturing chemical specialties is frequently faced. In many cases more emphasis is placed on imitating another manufacturer's item that is selling well than on the origination of new products. To develop a new chemical specialty is generally more lucrative from the standpoint of profits and increased sales volume than the mere copying of another man's successful brain child. Prestige and a sense of satisfaction accrue to firms and people creating something new.

What is back of many of these attempts to duplicate another competitive chemical specialty? In the majority of cases the cause may be traced back to the complaint of a salesman who lost an order because the product he was selling, in his opinion, did not perform as satisfactorily as that of a competitor's. While the salesman should not be criticized too severely for his chargin at the loss of the sale, neither is it a wise policy to change a generally satisfactory product simply because another is presumably preferred by a buyer. The product that will give 100 percent satisfaction to all of those using it has yet to be developed.

The writer, as one who has been through this situation a number of times, sympathizes with the inside man who must do the duplicating. His job is particularly onerous when he knows his product possesses excellent qualities. Two situations along these lines were experienced by the writer.

On one occasion our laboratory was ordered to make a change in one of the products of our company because that of a competitor was represented as possessing more desirable properties. The sales department complained that sales of our product were suffering because of the alleged deficiency. Several laboratory men were assigned to the problem, which turned out to be a difficult one. During the investigations a newly employed

DR. THOMSSEN

chemist in our company was consulted to see if he could be of some assistance in solving the problem. When apprised of the situation he burst out laughing. It seems a close friend of his was employed by the maker of the competitive product. The company was also having its difficulties and was receiving numerous complaints regarding the poor quality of its product and that our company's was far better. The company had men working in its laboratory for a longer time than we had in trying to duplicate our preparation which was replacing theirs in many instances.

On another occasion a product made by the writer's firm was criticized by members of the sales force as being ineffective for the purpose intended. We knew the criticism was unjust but agreed to improve it to keep the salesmen satisfied. We arranged secretly to buy in bulk a considerable quantity of the competitor's product which was praised as being the product salesmen could sell in volume instead of our inferior item. We packaged this bulk product under our labels and requested the sales department to distribute it in a localized territory, to obtain customers' reactions. Almost immediately many complaints came in, most of them requesting the original product instead of the substitute. When we informed the sales manager of our subterfuge he was so chagrined he offered no further criticisms of any of our items for a long time.

Such incidents tend to show that in many cases criticisms of one's own products are without foundation. Nevertheless they are very annoying to laboratory men. Several successful companies making sanitary chemicals with which we are familiar send out a laboratory man with a salesman to investigate complaints. If these are justified, the item is improved, if not the time and money so often misspent to make an unnecessary change are put to more constructive uses.

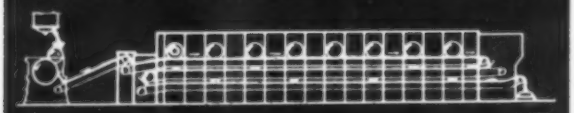
There are numerous cases, however, in which duplication is quite necessary. To carry this out economically requires considerable originality, imagination and experience. Many items are of such a nature that exact analyses are impossible. It became necessary to imitate by trial and error, rather than to duplicate by analysis, under such conditions. With the large array of raw materials available, it is possible to simulate, closely, almost any competing product. Just how to carry on the investigations to do this generally requires a different approach with each individual product.

To an experienced man in the field, a careful organoleptic examination will reveal considerable information as to the composition of most items. A simple cursory analysis such as determining the quantity of solids and liquids and then examining these fractions more closely is very revealing. The pH of a product can often be an important clue to its composition. A microscopic examination of such dry products as dishwashing compositions enables one to distinguish the alkalis present merely by noting the shape of the amorphous particles and crystals. The presence of mucilagenous materials may often be determined by permitting a small quantity of an aqueous extract to evaporate on a watch glass and then observe its

DEPENDABILITY

is engineered into every

PROCTOR Automatic FLAKE SOAP SYSTEM



Over the years users of the Proctor automatic flake soap system have discovered that dependability is engineered into every installation. Not only the dependability of long, trouble-free life—but the dependability of consistently producing a uniformly high quality finished soap. Many Proctor systems have been running continuously (often on multiple shift operation) for twenty years or more and are still giving trouble-free service . . . producing flakes that are uniform in thickness and moisture content.

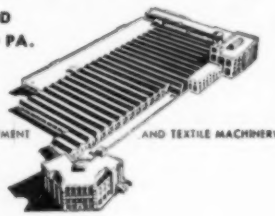
Such dependable performance is the direct result of Proctor engineers ability to combine their understanding of soap manufacturing with their knowledge of sound machine design.

An investment in a Proctor automatic flake soap system is an investment in dependable performance . . . and that is easily translated into profit.

Be profit-wise—investigate a Proctor system today!

PROCTOR & SCHWARTZ • INC •

625 TABOR ROAD
PHILADELPHIA 20 • PA.



MANUFACTURERS OF INDUSTRIAL DRYING EQUIPMENT AND TEXTILE MACHINERY

To keep your SOAP SALES flowing steadily!

Peer No. 100 Push-up Dispenser

GOODLOOKING—Bracket heavily chrome plated.

EASY FILLING—Filled and inverted, globe easily fits into place and engages bracket thread.

RUGGED—Metal valve parts nickel and chrome-plated. Neoprene washer, resistant to alkali. 12 ounce "Duraglas" globe — both handsome and sturdy.

VACUUM FLOW CONTROL—Sure fire, trouble-free action.

INSTALLED IN A JIFFY—Just three screws to place.

Peer No. 100 is a smart accessory to any lavatory — and your best possible assurance of steady soap sales

PROMPT DELIVERY

Write for Catalog Sheet

VISIT US AT BOOTH 156 DURING THE N.S.S.A. MEETING — MARCH 22-25!

MOORE BROTHERS COMPANY

101 WARREN STREET NEW YORK 7, N. Y.

Quality-proven Soap Dispensers and Dispensing Equipment

characteristics in conjunction with solutions of common gums of known types. Emulsions may be broken down with heat or by altering the pH to the acid or alkaline side. End uses of a product very often furnish constructive clues as to its make-up.

We cite these procedures briefly to point out that this trial and error method or "sniffing and spying procedure" as one chemist once described it in arriving at the approximate composition of a product enables one to make a better analysis. It may even result in the production of a product superior to that which it is being attempted to simulate. Empirical experience is at times more important than the technical skill of even an expert analyst. It is, of course, necessary for the practical man to have considerable imagination and to know his raw material market thoroughly in order to make a satisfactory duplication of even the simplest of products by such a procedure.

In the field of chemistry it requires years of study and work to excel in but one branch of this science. In the chemical specialty field most manufacturers cover a lot of ground with their diversified lines of products such as insecticides, germicides, soap, synthetic detergents, emulsions and other items. It is hardly fair to expect one trained man to be so expert as to duplicate almost any product in the field, especially with the poorly equipped laboratories we often find in this industry. If the item is important enough, it is more advantageous to permit him to consult with others who are specialists in their particular fields, and who possess proper laboratory equipment. This procedure is more apt to produce results and more promptly than putting the burden upon one man who is usually already overworked by routine manufacturing tasks.

Recording Spectrophotometer

TECHNICAL Bulletin #33 recently issued by Baird Associates, Cambridge, 38, Mass. describes the ever-increasing use of their spectrophotometer for research and control analysis of many chemical products. This bulletin is free upon written request.

Plastic Liners and Covers

IN the packaging of many products, it is necessary to protect them both against sifting and against exposure to the elements. Polyethylene liners and bags, as well as transparent barrel and drum covers, are finding more ready acceptance by the trade because of lower prices and improved quality. The bags and liners are tough, light in weight, odorless and possess other desirable qualities. The drum covers protect the contents of five to 75 gallon drums before and after they are emptied. The company also makes protective utility aprons. For further information regarding these write Pelamag Products, New York 3, New York.

Ammonium Bicarbonate

SOLVAY Process Division of Allied Chemical & Dye Corporation, New York 6, N. Y. recently indicated that their "Anchor Brand" ammonium carbonate is finding an increased number of applications in the chemical industry. This product volatilizes completely at low temperatures and has been found useful in fluffing and adding bulk to numerous items. While mainly used in the food industry, it may prove valuable for other applications.

Humidity Controller

THE Hygrol Air Dryer built by Niagara Blower Company, New York 17, N. Y. affords a simple effective means of producing controlled humidity, air conditioning. The method used is to remove moisture from the air by contacting a drying liquid with the moist air in a spray chamber. The temperature and absorbent concentration are readily controlled so as to determine exactly the amount of moisture in the air to be conditioned. The heating and cooling of the absorbent is a separate function. The method is claimed to be effective, reliable, flexible and easy. The cost of operation is low and little space is occupied by the equipment. Complete information is available upon request.

ASTM Detergency Book

Publication in book form of three papers presented during a symposium discussion of statistical methods for the detergent laboratory was announced recently by the American Society for Testing Materials, 1916 Race St., Philadelphia. The symposium was part of the regular program of the 1952 meeting of Committee D-12 on Soaps and other Detergents in New York last March.

Papers reprinted in the booklet are: "The Design of Laboratory Control of Laundry Washrooms Based on an Analysis of Variance" by G. S. Freeman and M. I. Cohn; "The Importance of Correlations in Detergency Testing" by J. M. Lambert and E. J. Leshan, and "Graphical Methods of Statistical Analysis and Tests for Significance" by P. L. Schmidt. Copies of the 48 page booklet are $1.25 to non-members; 95 cents for members. They may be obtained direct from the Society at the address above.

Bids & Awards

(*From Page 79*)

rick Brothers, Chicago, and by Stahl Soap Corp., Brooklyn.

Steam Cleaner Award

The award on 10,000 pounds of steam cleaning compound in a recent opening for miscellaneous supplies by the Engineers Corps, San Francisco, was won by Industrial Chemical Co., San Francisco, with a bid of 10.59 cents.

Deodorant Block Bids

Both A.M.R. Chemical Co., Brooklyn, N. Y., and Reliable Chemical Co., Passaic, N. J., submitted bids of 5.25 cents, lowest on 24,048 four-ounce deodorant blocks in a recent opening for miscellaneous supplies by Federal Supply Service, New York.

Stahl Submits Low Soap Bid

Stahl Soap Corp., Brooklyn, submitted the lowest bid of 9.89 cents per pound on 50,000 pounds of toilet soap in a recent opening for miscellaneous supplies by the Post Office Department, Washington, D. C.

OTTASEPT WILL ADD VALUE to your soaps, shampoos and cleaners

★ **A GERMICIDE** and fungicide, uniquely effective Ottasept helps you produce more valuable hand soaps, pharmaceuticals and cosmetics, helps your distributors, jobbers and dealers sell.

★ **POTENT** and non-toxic, Ottasept is easy to formulate. It's non-staining, colorless, 100% active ingredient. Requires no license or new drug application when used externally.

★ **IF YOU PRODUCE**, or plan to produce, soaps shampoos, detergent mix, disinfectants or specialties, Ottasept can be a vital, plus asset to your products. Produced in bulk and offered at a low price.

★ **OTTAFECT**: A companion to Ottasept is Ottafect, used for disinfectant solutions, pine oil and scrub soap formulations. Useful as a preservative for protein and carbohydrates. Easy to formulate.

★ **SAMPLES**: For technical assistance, data sheets, and samples, fill out coupon below . . .

The
OTTAWA CHEMICAL COMPANY

821 Hamilton Str., Toledo 7, Ohio

Send me:

	SAMPLES	LITERATURE
Ottasept	☐	☐
Ottafect	☐	☐

NAME .....
COMPANY .....
ADDRESS .....
CITY ..... ZONE.... STATE.....

Natural and Aromatic Materials...

Bases and Specialties for PERFUMES, COSMETICS and SOAPS

Exclusive Representatives for Tombarel Freres, Grasse

- **Absolute Supreme Flower Essences**
- **Surfine Essential Oils**
- **Resinoids**

Tombarel
PRODUCTS CORPORATION
12 EAST 22nd STREET, NEW YORK 10, N. Y.
Member of the Fragrance Foundation, Inc.

IN CHICAGO: A. C. Drury & Co. Inc.,
219 East North Water Street

Products and PROCESSES

New Borax Hand Cleaner

"Boraxo," a powder hand cleaner was recently introduced by Borax Consolidated Ltd., London, England. The product is said to contain no insoluble or abrasive fillers and the scouring action necessary to remove ingrained dirt, or to penetrate oily films, is provided by the small grains of borax, which slowly dissolve during the wash. "Boraxo" in water solution is mildly alkaline—much less so than soaps in general. It has a pH value of 9.3 which is claimed to be sufficiently low to ensure no chemical damage to the skin and to prevent undue removal of natural fats. *Chem. Age*, January 3, 1953, p. 20.

Mercuric Fungicide

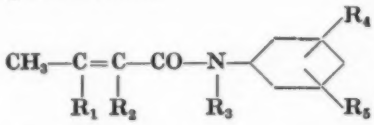
A fungicidal preparation comprising phenyl mercuric chloride incorporated with a zinc oxide carrier is covered by British patent 616,105. The phenyl mercuric chloride may be precipitated from an aqueous solution of phenyl mercuric acetate by sodium chloride. Dispersing agents such as sulphite lye or gum arabic may be added and the solid product is dried and powdered. This powder may be used as aqueous suspensions or may be milled with petroleum jelly or other suitable carrier.

Foaming Cleaner

A mixture of 100 kilos of colophony and 46 kilos of triethanolamine in 23 per cent solution are heated for two hours in an autoclave to a temperature of 129°C. to make a foaming detergent. It is agitated for one minute to eliminate all CO_2 from the autoclave, and further agitated every 15 minutes until the end of the reaction. Five per cent lauryl or cetyl sodium sulfonate and 0.5 to one per cent potassium persulfate suspended in water are added, and the mixture is boiled for two to three hours until all active oxygen has been liberated. It is then left standing for three to four hours. Finally it is mixed with 25 to 75 per cent sodium metasilicate. The resulting product can be used in conjunction with soap or mixed with it. The following formula for sea water soap is supplied: 36 parts of coconut oil, 28 parts NaOH 30°Be, 36 parts of the above mixture (containing 66 per cent sodium metasilicate). Italian patent 444,081, 1949. *Oleagineux*, November 1952, p. 652.

Fungicide, Insect Repellent

Fungicidal and insect repellent compounds consist of amides of α,β, unsaturated carbocyclic acids of the general formula:



where R_1 and R_2 are hydrogen or methyl, R_3 is alkyl, R_4 is hydrogen, halogen, methyl or methoxy, and R_5 is halogen, methyl or methoxy. Preparation of the compounds is by known methods. British patent 615,137, R. M. Hughes, J. R. Geigy A.G.).

Glycerine in Dry-Cleaning

Glycerine is the main ingredient of a composite stain remover used in the dry-cleaning trade. The formula calls for glycerine, four parts by volume, glacial acetic acid ¾, methyl alcohol one, lactic acid one, and amyl acetate (C.P.) one.

After the above mixture has been made up, add three to five drops of either dilute hydrofluoric acid or a proprietary rust remover. Next add the smallest amount of butyl alcohol which will give a clear solution. Purpose of the butyl alcohol is to mix the wet and dry solvents, and a complete and permanent mixture is not obtained as long as the solution remains turbid. After this, add one-half part by volume of oleic acid. The latter will require several hours to dissolve in the mixture completely.

This formula is claimed to be safe on rayon, silk, cotton and acetate fabrics, but before use on the latter it should be tested on a sample of acetate satin. It is said to be a good stripping agent for tannin stains such as those caused by coffee, tea, beer, Coca-Cola, ginger ale, and other soft drinks. If the tannin stain is well oxidized, however, it will be difficult to remove with this or any other known means. The solution is also said to be useful in removing many fruit, ink and dye stains, and to be reasonably safe on most dyed fabrics. R. B. Smith in *Laundry Manager*, July 1952, p. 17.

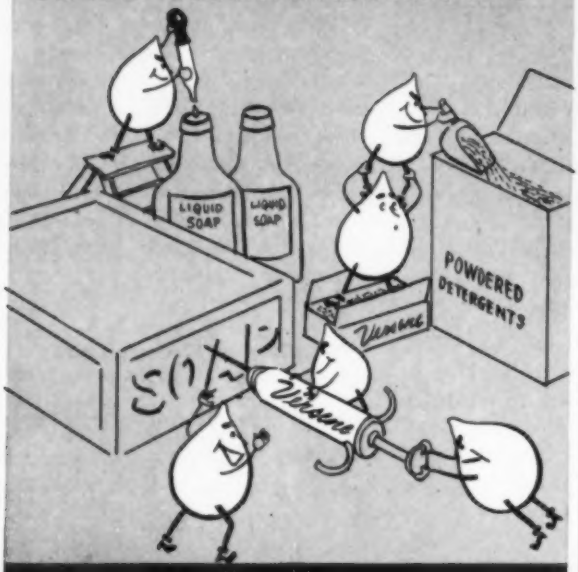
Phosphorus Compounds

Complex metaphosphates such as "Calgon" (sodium hexametaphosphate) and sodium tripolyphosphate and their use in conjunction with detergents and in boiler-water treatment were reviewed by C. W. Tod in a recent talk before the London and South-eastern Counties section of the Royal Institute of Chemistry. After quoting data on the increase of phosphorus production he described the electric furnace process in some detail. Phosphorus thus obtained is burned to yield the pentoxide from which a very pure and concentrated grade of phosphoric acid is derived. The probable mechanism of inhibition of precipitation of calcium and magnesium compounds by the use of metaphosphates was considered; metaphosphate chains were shown to fit into the calcite lattice, thus inhibiting crystal formation. The effect of these phosphates in preventing the corrosive effect of soft water on steel was shown to be due to their action as cathodic inhibitors in the corrosive process. The necessity in certain circumstances for using sodium carbonate with "Calgon" to avoid the production of an insoluble acid soap was brought out in the discussion. *Chem. & Ind.*, December 13, 1952, p. 1219.

P. & G. Closes Printing Dept.

Procter & Gamble Co. of Cincinnati recently closed the printing shop it had operated for many years, following a trend which company officials said is general among large business concerns. The 20 printing shop employees will be placed in other company jobs.

HOW TO "BUILD IN" HARD WATER RESISTANCE



...add Versene*

ELIMINATES SCUM, QUICKENS LATHER, INCREASES DETERGENCY

Versene added to any soap, natural or synthetic, hard, soft, liquid or "built," makes it better — often at less cost. This is because this powerful, non toxic chelating agent inhibits oxidation, rancidity, chalking and discoloration. It chemically solubilizes proteins, prevents insoluble deposits and automatically "conditions" the water in which your soap products are used. Versene softens water completely and permanently *without* the formation of precipitates. It is exceptionally stable at high temperatures throughout the pH range.

UNIFORM COMPLEXING POWER

The complexing power of the Versenes is guaranteed uniform in either sample or carload lots. Versene is made only by the Bersworth Chemical Company under processes originated, developed and patented by F. C. Bersworth. Available in liquid or powdered form, Versene can make your soap product or cleaning compound better. Investigate now. Write Dept. C for technical data and sample. Chemical counsel available.

VERSENE* WATER TEST KIT. Tells Total Hardness in 2 minutes. Accurate to 1 grain per gal. Versenate Method. Complete with instructions $5.00 Postpaid.

*Trade Mark Registered

KEY TO CHELATION

"Chemistry's most precise chemicals"

BERSWORTH CHEMICAL CO.

FRAMINGHAM, MASSACHUSETTS

WAREHOUSE-STOCKS

Providence Agent: George Mann & Co., Inc., 251 Fox Point Boulevard, Providence, R.I.
W. Coast Agent: Griffin Chemical Co., San Francisco, Los Angeles
Midwest Agent: Kraft Chemical Co., Inc., 917 W. 18th Street, Chicago
Wasatch Chemical Co., Salt Lake City, Utah
Southwest Agents: Barada & Page, Inc., Dallas, Houston, Kansas City, etc.
Chas S. Tanner Co., 1815 Liberty Life Bldg., Charlotte, North Carolina
Siegel Chemical Co., Brooklyn, N. Y.

Unless you've seen it fill row after row of containers, you can't imagine what it can do. So completely automatic, it virtually does its own thinking.

A marvelous performer on liquids — no matter how small or big your containers. For different sizes, simply adjust the machine right on the job.

With Model B-49 Straightline Vacuum Filler you will appreciate a uniform, clean fill and fast multiple filling at low cost. Here's a machine you'll want. Write for Bulletin B-49.

U. S. BOTTLERS' MACHINERY COMPANY

4019 N. ROCKWELL ST. CHICAGO 18, ILL.

OFFICES: Boston — Dallas — Houston — Denver — Los Angeles — New York — Phoenix — Portland — San Francisco — Seattle — Tampa — Atlanta — Montreal — Toronto — Vancouver — Winnipeg — New Orleans — Philadelphia. EXPORT OFFICE: Toledo, Ohio.

NEW Patents

The information below is furnished by patent law offices of

LANCASTER, ALLWINE & ROMMEL

402 Bowen Building
Washington 5, D. C.

The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

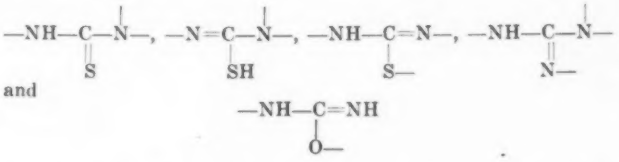
No. 2,615,827. Fungicidal and Insecticidal Preparations, patented by Albert J. Shmidl, Greens Bayou, Tex., assignor, by mesne assignments, to Standard Oil Development Co., Elizabeth, N. J., a corporation of Delaware. A fungicide and insecticide is described which comprises a chlorinated duroquinone containing approximately 54.5 per cent by weight of chlorine substituted on the non-aromatic carbon atoms, a hydrocarbon, a wetting agent, and water.

No. 2,613,193. Sprayable Polytetrafluoroethylene Aqueous Suspensoids Containing an Organic Liquid, patented by Le Verne Kenneth Osdal, Upper Darby, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware. The patent describes a sprayable emulsion comprising a premade aqueous suspensoid of colloidal substantially completely polymerized tetrafluoroethylene and an organic liquid emulsified therewith.

No. 2,618,604. Polyphosphate-Containing Detergent Compositions having decreased Corrosivity toward Aluminum, patented by John R. Schaeffer, Reading, Ohio, assignor to The Procter and Gamble Company, Ivorydale, Ohio, a corporation of Ohio. The patent describes a detergent composition consisting essentially of a mixture from 10 to 98 parts by weight of synthetic organic detergent of the group consisting of anionic and nonionic water-soluble synthetic organic detergents, from 2 to 60 parts by weight of a calcium-sequestering phosphate, a water-soluble beryllium salt, and a neutralizing agent in sufficient amount to establish the pH of solutions of said composition between 6 and 10 when measured at room temperature, the amount of beryllium salt expressed as BeO being from 0.5 per cent to about 10 per cent by weight of said phosphate and sufficient to lessen corrosion of aluminum by solutions of the composition.

Also covers a composition consisting essentially of a mixture of a calcium-sequestering phosphate and a water-soluble beryllium salt, the beryllium salt being present in an amount equivalent to from 0.5 per cent to 10 per cent BeO based upon the weight of said phosphate and sufficient to inhibit corrosion of aluminum by the calcium-sequestering phosphate component in aqueous solution of the composition.

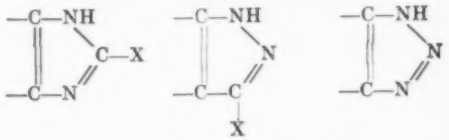
No. 2,618,605. Detergent Compositions Containing Metal Discoloration Inhibitors, patented by John R. Schaeffer, Reading, Ohio, assignor to The Procter and Gamble Company, Ivorydale, Ohio, a corporation of Ohio. As a new composition of matter, the patent reveals a mixture consisting essentially of (a) a salt selected from the group consisting of sodium and potassium chlorides, sulfates, calcium-sequestering phosphates and mixtures thereof, and (b) a discoloration inhibitor for non-ferrous, coppery metals which is a water-soluble organic compound of molecular weight not exceeding 250 and is characterized by a single heterocyclic ring of not less than 5 nor more than 6 members, said ring containing a linking nucleus which includes 3 members of said ring and is selected from the group consisting of nuclei of the formulae



and

and said ring being completed by satisfying free valence bonds of any two atoms of said linking nucleus by a polyvalent sulfonate-free organic residue, the members of said ring exclusive of said linking nucleus being selected from the group consisting of carbon and nitrogen, such free valence bonds as remain after completion of the ring being satisfied by a member of the group consisting of alkyl, aryl, aralkyl, alkylol and alkenyl radicals and hydrogen, said inhibitor being present in an amount not exceeding 1 per cent by weight of the total composition and sufficient to inhibit discoloration of said metals when in contact with water and said composition.

No. 2,618,606. Detergent Compositions Containing Metal Discoloration Inhibitors, patented by John R. Schaeffer, Reading, Ohio, assignor to The Procter and Gamble Company, Ivorydale, Ohio, a corporation of Ohio. The patent describes as a new composition of matter, a mixture consisting essentially of (a) a salt selected from the group consisting of sodium and potassium chlorides, sulfates, calcium-sequestering phosphates and mixtures thereof, and (b) a discoloration inhibitor for non-ferrous, coppery metals which is a water-soluble organic compound of molecular weight not exceeding 250 having a nucleus selected from the group consisting of nuclei of the formulae



and tautomers thereof wherein X is a member of the group consisting of hydrogen and alkyl, aryl, aralkyl, alkylol and alkenyl radicals, free valence bonds in said nucleus being satisfied by members of the group consisting of alkyl, aryl aralkyl, alkylol or alkenyl radicals, bivalent sulfonate-free organic residues, and hydrogen, the inhibitor being present in an amount not exceeding 1 per cent by weight of the total composition and sufficient to inhibit discoloration of said metals when in contact with water and said detergent composition.

No. 2,617,747. Mothproofing, patented by Ida Marie Rasmussen, New Brunswick and Edward F. Rogers, Middletown, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey. The patent describes a process for mothproofing woolen fabrics that comprises treating said woolen fabric with a solution of N,N′methylene bis(a-chloro)-acetamide in an organic solvent and depositing on said fabric an amount of N,N′-methylene bis(a-chloro) acetamide equivalent to about ¼ to one per cent by weight of said fabric.

No. 2,619,469. Synthetic Detergent Milled Flakes, patented by Robert Franklin Heald, Nutley, N. J., assignor to Colgate-Palmolve-Peet Company, Jersey City, N. J., a corporation of Delaware. The patent describes milled synthetic detergent flakes consisting by weight essentially of about 30 per cent to 50 per cent water-soluble salt of an organic sul-

(*Turn to Page* 110)

SPECIALLY PREPARED **NEWPORT ROSINS** FOR SOAP MANUFACTURE

Triple Checked for better soap

ABSOLUTE CLEANLINESS

ABSOLUTE UNIFORMITY

MAXIMUM QUALITY

MUNN:® M Wood Rosin **WONEX: W W Wood Rosin**

SPECIALLY PROCESSED FOR SOAP MANUFACTURE TO ACCELERATE SAPONIFICATION

Pale Wood Rosins that mean a better soap . . . with a minimum of labor . . . because every batch of the same rosin shipped is identical with every previous batch. This enables you to have Uniformity in your soap with never a need to adjust your formula.

NEWPORT INDUSTRIES, INC.

230 PARK AVENUE NEW YORK 17, N. Y.

YOU CAN COUNT ON KOPPERS

. . . for TAR ACID OILS

Any required tar acid percentage. Guaranteed coefficiency based on tar acid content. Crystal free at 0°C.

. . . for CRESYLIC ACID

99% minimum purity. Clean, uncontaminated odor. Boiling range and chemical compositions appropriate for all applications and required solubilities.

. . . for U.S.P. CRESOL

90% distills within range of 7°C., which betters Pharmacopoeia requirements.

KOPPERS COMPANY, INC.
Pittsburgh 19, Pa.

KOPPERS

SOAP PLANT *Observer*

By John W. McCutcheon

CONTINUOUS processes have substantially changed the face of the soap making industry in the past quarter century. For one thing, a continuous process is intriguing in areas where high wage scales for labor prevail. Generally speaking, continuity of operation lowers the man hours of labor per unit of production. In areas where wages are low, continuous processing often gives management a control over product quality, which is not possible with unskilled labor. A Sharples plant for continuous soap making was recently observed being put into operation in a country outside the U. S. in which the wage ran below 25c an hour.

There are other advantages to continuous systems. Less stock is held in process, resulting in lower inventories of raw materials. The overall time in processing is shortened, which generally reduces steam costs by lowering radiation losses. Losses through transfer and handling of scrap materials are minimized, with improved yields. Very often this leads to a direct saving of controls and procedure for testing and accounting.

Disadvantages of a continuous process include: (1) high capital cost; (2) unwieldy operation, and (3) unusually high skilled labor requirements.

The high capital cost of an installation is due primarily to: special control features; cost of development work, which must be absorbed over a wide area in the form of royalties, license fees, etc., and the size of the plant. The more complicated the plant, the greater must be its output to absorb the increased cost of controls.

A continuous fat splitting plant generally is built with a mimimum capacity of 3,500 pounds per hour. A plant of half that capacity would cost almost as much. The splitting tower of the smaller plant would have to be as high as for the larger plant. Steam would be required at just as high a pressure and instrumentation would be the same. The minimum size for the Sharples continuous soap plant is approximately 1,500 pounds per hour of finished product. It seems hard for many would-be-purchasers, who have small production schedules, to realize that certain types of continuous operations would not be economical for them at the present time. Size limit of plant, is not a fixed thing, however, and engineers are constantly on the alert to produce as small a packaged unit as can be operated economically.

License and royalty fees frequently are cut drastically after a certain length of time and for foreign purchasers. This can represent a considerable reduction in capital costs, as such plants are often sold on a five year paid up royalty basis.

A large plant becomes unwieldy when production has to be interrupted frequently. Wrapping machines never run in a very satisfactory manner when the size of package has to be changed two or three times a day. In theory such changes present no difficulty, practically they are a headache. Continuous processes also require a high degree of mechanical skill to maintain and repair. This must be anticipated in advance. But not too far in advance, such as was noted in a recent contract. In this case the engineer was to provide a skilled operator for six months breaking in of the plant, a supervisor for managing the plant a minimum of one year after the break-in period. In addition, one of their own native sons was to be schooled in an American plant for a period of one year. All this for a plant making less than four frames of laundry soap a day!

The five continuous processes which are chiefly interesting to the soap industry are as follows:

(1) Fat splitting under high pressure;

(2) saponification, washing and finishing of soap;

(3) recovery of glycerine;

(4) neutralization of fatty acids;

(5) sulfonation.

The essential points of each process can only be treated here. No. 1, for example, depends on the mutual solubility of fat, fatty acid, water and glycerine at high temperatures and pressures and is exemplified by the Colgate-Emery or Procter & Gamble process.

No. 2 is best known by the (a) Clayton, (b) Monsavon and (c) Sharples processes. In the Clayton process alkali and oil are intimately mixed at a high pressure and temperatures to complete saponification and the water and glycerine are flashed off leaving anhydrous soap behind. In the Monsavon process (U. S. 2,485,-204) saponification is promoted by mechanical means, the resulting soap is washed in counter current fashion in a tower and finished in a kettle. The Sharples process depends on intimate mechanical mixing plus centrifuge washing. The Clayton process is not in extensive use.

Continuous processes for recovery of glycerine by means of evaporation and distillation are in common use. These lend themselves readily to No. 2 system of soap manufacturing where lyes are obtained. Of more recent interest is the method of ion exchange and concentration to chemically pure glycerine by evaporation only. This process lends itself very well to process No. 1 in which sweet waters are made, although at least one large installation in the U. S. uses ion exchange technique on nor-

GAIR

FOLDING CARTONS

Sell on Sight!

Smartly designed and brilliant multicolor Folding Cartons by GAIR are solving packaging problems for many manufacturers who are as meticulous about their packaging as they are about their famous products.

Sales, profits and prestige are increased with the SELL-ON-SIGHT magic of GAIR MULTICOLOR CARTONS.

WRITE TODAY for samples and technical information.

*Reg. U. S. GAIR Pat. Off.

ROBERT GAIR COMPANY, INC.

155 EAST 44TH STREET, NEW YORK • TORONTO

PAPERBOARD • FOLDING CARTONS • SHIPPING CONTAINERS

PETRONATE* (Oil Soluble)

HYPONATE* (Oil Free)

PYRONATE* (Water Soluble)

PETROLEUM SULFONATES

. . . made to your specifications for use in products such as . . .

- *rust preventive formulations*
- *soluble cutting oils*
- *soluble textile oils*
- *emulsion degreasing compounds*
- *fuel oil additives*
- *emulsifiers for agricultural and insecticide sprays*
- *special emulsifying formulations*

Ask Sonneborn about PETRONATE, the oil soluble petroleum sulfonate available in various molecular weights; HYPONATE, an oil free petroleum sulfonate; and PYRONATE, a water soluble petroleum sulfonate effective as an emulsion breaking reagent.

Sonneborn petroleum sulfonates — superior in quality and possessing exceptional uniformity — are now made to fit a wide variety of specific needs. They can also be tailor-made to your exact specifications. You can rely on prompt shipment.

* Reg. U. S. Pat. Off.

Free Informative Booklet

This valuable booklet gives highly useful data on the many ways PETROLEUM SULFONATES are being and can be used. Write today for this highly informative booklet.

L. SONNEBORN SONS, Inc.

300 FOURTH AVENUE

NEW YORK 10, NEW YORK

Achieved by **Sonneborn** *RESEARCH*

mal soap lyes after concentrating them to crude. More on this next month.

DEFINITIONS of detergent terms have been mentioned in previous columns and one in particular referred to their status in Argentina. In that country, the policy of some manufacturers was to misrepresent their soap products as synthetic detergents. The following (translated) rule has been set up by the Ministerio de Salud Publica y Asistencia Social de la Provincia de Buenos Aires to stop such practices. *The name "Detergent" should be used to distinguish those surface active agents that, having cleansing properties, are not included in the definition of "Soaps."* This definition is not far from our own present usage of the term, "Detergent" as much as I hate to admit it. Actually, a scientist feels that the term detergent should bear its pure unmodified dictionary meaning which includes soap along with many other new type agents. He has been careful to define the new type products by special names such as synthetic detergents, or "syndets." The public will have none of this, however; to them soap is one thing and a detergent another. Eighty million people can't be wrong so let's give in and throw these special terms out the window! And while we are at it, how about that new term "amphipathy" coined by Hartley and propagated profusely by Moilliet & Collie in their book "Surface Activity." For those who have written or called me on this, it means a molecule with a polar and non-polar group. Soap is an amphipathic molecule for example. This is bad enough, but to compound the felony, a molecule that has its polar and non-polar groups a little mixed up, such as say a polyethylene glycol, is called a "Specific surface active agent, as a concession to our present lack of knowledge."

IT would hardly do to forget a mile stone in synthetic organic chemistry that has just been passed. The synthesis of linoleic acid as reported in a recent issue of the *Journal of the American Chemical Society*. It is almost twenty years ago, since its homologue "oleic" was prepared by synthetic means in 1934, I believe. In that case no important discovery of structure was developed by the synthesis. With linoleic however, I believe something more may be expected if the synthesis is followed by studies on isomerization. The writer has always felt (and went to some trouble to prove it back in 1939) that the double bond can be broken so that one pure compound can give rise to two or more derivatives. Of course, no one paid much attention to the idea and we still are plowing uncertainly in that field. My hopes are that the synthesis of this important fatty acid will lead to a complete clarification of this situation.

—— ♦ ——

New Atlas "Chemmunique"

The first issue of a new pocket-size, three-color publication called "Chemmunique" was made available recently to the executives of chemical process industries by Atlas Powder Co., Wilmington, Del. The publication, to be issued on alternate months, presents helpful information on new and old uses of Atlas chemical products written in non-technical fashion and illustrated with color cartoons. Copies may be obtained without charge by writing to the company.

—— ♦ ——

Solvay Ups Dausman

The promotion of Roy J. Dausman to the position of assistant auditor for Solvay Process Division, Allied Chemical & Dye Corp., New York, was announced recently by J. J. Bryers, auditor. A native of Syracuse, Mr. Dausman has been affiliated with the company for more than 30 years, having started as a messenger in the main office in 1920 In his new assignment as assistant auditor he fills the post left vacant last summer when Mr. Bryers became auditor on the retirement of O. C. Burrell. Mr. Dausman will continue to make his headquarters at the Syracuse office.

—— ♦ ——

Essential Oils Catalog

A new 1953 wholesale price catalog was issued recently by Ungerer & Co., New York. In separate sections, the catalog gives the current prices of perfume bases, essential oils, aromatic chemicals and related materials.

—— ♦ ——

GE Expands Silicone Plant

General Electric Co., Waterford, N. Y., has begun recently a $5 million expansion of its silicone chemical plant for the production of silicone fluids for furniture and automobile polishes.

—— ♦ ——

Crown Aerosol Brochure

"Guide to Pressure Packaging in Spra-tainer," has just been released by Crown Can Division of Crown Cork & Seal Co., Philadelphia, which gives in detail, fully illustrated, an understanding of the problems involved in aerosol packaging. The brochure explains the practical applications of pressure packaging in such products as aerosol insecticides, bactericides, air deodorants, fertilizer sprays, fumigants, moth proofers, perfumes, polishes, protective coatings, residual insecticides and waxes. The brochure also covers "Spra-tainer" specifications.

New officers of the Chicago Chapter of the Society of Cosmetic Chemists installed recently include, left to right: Dr. H. F. Davidson, Jules Montenier, Inc., treasurer; Douglas Atlas, Marcelle Cosmetics, chairman; Robert Appenzeller, G. Barr and Co., secretary; William Colburn, Colburn Laboratories, chairman-elect.

Patents

(*From Page 105*)

furic acid reaction product having in its molecular structure an alkyl radical of 8 to 22 carbon atoms, about 50 per cent to 70 per cent of inorganic sulfate salt having the same cation as said organic salt, and about 1 per cent to 5 per cent of a softening agent from the group consisting of polyhydric alcohols, fatty acids having 6 to 22 carbon atoms and monoesters of polyhydric alcohols with fatty acids having 6 to 22 carbon atoms.

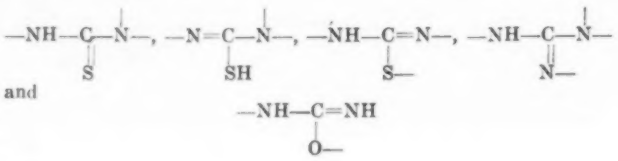
No. 2,619,467. Detergent Mixtures Containing Beta Amino Propionates, patented by Arthur F. Isbell, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware. The patent covers a detergent composition comprising a mixture of a beta-amino propionate compound having the formula

$$RNHCH_2CH_2COOX$$

in which R is an aliphatic hydrocarbon group containing from 12 to 18 carbon atoms and X is a cation which renders the compound water-soluble, and a detergent compound having greater hydrophilic properties than said beta-amino propionate, said detergent compound being selected from the group consisting of water soluble salts of alkylaryl sulfonates in which the alkyl group contains from 1-6 carbon atoms, ethylene oxide derivatives of alkylphenol and beta amino propionates having the above formula in which R is an aliphatic hydrocarbon group containing from 6-10 carbon atoms.

No. 2,617,772. Tack-Free Alkaryl Sulfonate Detergent, patented by Vincent J. Keenan, Ardmore, Pa., assignor to The Atlantic Refining Company, Philadelphia, Pa., a corporation of Pennsylvania. A detergent composition is described comprising a water-soluble salt of an alkyl aryl sulfonic acid and from 20 per cent to 70 per cent of lecithin by weight based on the weight of the dry salt of the alkyl aryl sulfonic acid.

No. 2,618,603. Detergent Compositions Containing Metal Discoloration Inhibitors, patented by John R. Schaeffer, Reading, Ohio, assignor to The Procter and Gamble Company, Ivorydale, Ohio, a corporation of Ohio. A surface active composition is described consisting essentially of a mixture of at least 1 per cent and not more than 98 per cent by weight of a water soluble detergent that is a salt of a high molecular organic sulfonation product of a material having in its molecular structure a long chain lipophilic group of from 8 to 24 carbon atoms, at least 1 per cent and not more than about 98 per cent by weight of an inorganic salt selected from the group consisting of sodium and potassium chlorides, sulfates, calcium-sequestering phosphates and mixtures thereof, and a discoloration inhibitor for non-ferrous, coppery metals which is a water-soluble organic compound of molecular weight not exceeding 250 and is characterized by a single heterocyclic ring of not less than 5 nor more than 6 members, said ring containing a linking nucleus which includes 3 members of said ring and is selected from the group consisting of nuclei of the formulae



and

and said ring being completed by satisfying free valence bonds of any two atoms of said linking nucleus by a polyvalent sulfonate-free organic residue, the members of said ring exclusive of said linking nucleus being selected from the group consisting of carbon and nitrogen, such free valence bonds as remain after completion of the ring being satisfied by a member of the group consisting of alkyl, aryl, aralkyl, alkylol and alkenyl radicals and hydrogen, said inhibitor being present in an amount not exceeding 1 per cent by weight of the total composition and less than the amount of said sulfonation product but sufficient to inhibit discoloration of said metals when in contact with water and said composition.

No. 2,616,856. Detergent Composition, patented by Myer Rosenfeld, Aberdeen, and Charles F. Pickett, Bel Air, Md. The patent covers a detergent composition consisting essentially of a mixture of the oleate of diethylene triamine and the condensation product of diethylene triamine and diacetone alcohol in the ratio of about one mole of the diethylene triamine to between about one and two moles of the diacetone alcohol, the diethylene triamine oleate comprising between about 29 per cent and about 60 per cent by weight of said composition.

No. 2,618,659. Preparation of Glyceryl Amines, patented by Howard J. Wright, Evanston, and Archie B. Cramer, Chicago, Ill., assignors to The Association of American Soap & Glycerine Producers, Inc., New York, N. Y., a corporation of Delaware. The patent describes a process of preparing glyceryl monoamine which comprises treating glycerine with a sulfating agent to produce reaction products having an apparent average number of hydrogen sulfate groups per glycerine molecule of from about 0.20 to about 1.30 and aminating the reaction products by treatment with about 5 to about 50 moles of ammonia per mole of sulfate ester groups in the presence of an amount of a fixed alkali which is in excess of one equivalent for each acid equivalent in the sulfating agent used and in the presence of a weight of water which is about 3 to about 30 times the weight of glycerine originally treated, at a pressure in the range from about 0 to about 250 lbs./sq. in. gage and a temperature in the range from about 40° C. to about 150° C. and recovering the glycerine: glyceryl amines mixture.

No. 2,619,470. Whitening and Brightening Rinse Composition for Nylon, patented by Palmer G. Hendrix, Hickory, N. C., assignor to Pro-Nyl Chemicals, Inc., Salisbury, N. C., a corporation of North Carolina. The patent covers a concentrated whitening and brightening rinse composition for nylon goods comprising 0.1 per cent to 6.0 per cent 3,7-dianisoylamido dibenzothio-phenesulfone-2,8-sulfonic acid, suspended in an aqueous medium containing at least 20 per cent of tertiary butyl alcohol.

No. 2,619,494. Hydrolysis of fats and Oils, patented by John Ross, Ramsey, and Walter Russell Trent, North Arlington, N. J, assignors to Colgate-Palmolive-Peet Company, Jersey City, N. J., a corporation of Delaware. A process of hydrolyzing fatty material to produce fatty acids and glycerine is described which comprises intimately contacting said fatty material with water by countercurrent flow at high temperatures and at superatmospheric pressures in the presence of a stabilizing catalyst having antioxidant and catalytic properties to avoid substantial darkening of the fatty acids and glycerine produced, said stabilizing catalyst consisting of an hydroxy aromatic derivative compound having at least one alkyl group attached to a single benzene nucleus.

No. 2,619,493. Monoglycerides, patented by Frank A. Norris, Chicago, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois. The patent describes the process of producing substantially pure monoglycerides, which comprises reacting glycerin with an oxo-carbonyl compound whereby two of the hydroxyl groups of the glycerin are blocked, esterifying the resulting reaction product by reaction with an alkyl ester of a fatty acid, purifying the esterified reaction product by high vacuum distillation, and thereafter unblocking the blocked hydroxyl groups by removing the oxo-carbonyl compound to form a monoglyceride.

Sanitary Chemicals Section

Consider . . .

If you are a manufacturer of disinfectants, insecticides, floor waxes, aerosol products, soap and detergent specialties, automotive chemicals, and kindred chemical specialties, consider the advantages of membership in the Chemical Specialties Manufacturers Association.

For almost 40 years, leaders in the industry, large and small alike, have been members of CSMA and identified with its activities. Cost of membership is low. Its services are broad and helpful. Contacts within its membership are valuable.

If your firm is eligible for membership, we shall be glad to send you full information. Write to

H. W. HAMILTON, *Secretary*

CHEMICAL SPECIALTIES MFRS. ASSOCIATION — FOUNDED CSMA 1914

Chemical Specialties Manufacturers Association, Inc.

110 East 42nd Street — Clarence L. Weirich, President — New York 17, N. Y.

Melvin Fuld, 1st Vice-Pres. — T. Carter Parkinson, 2nd Vice-Pres.

Peter C. Reilly, Treasurer — H. W. Hamilton, Secretary

"Go the scientific way with MGK"

Pioneers in the processing of pyrethrins and suppliers of over 90% of the Allethrin used by industry to date, MGK is in a unique position. Having more commercial experience with Allethrin and Pyrethrum than any other firm in the world, MGK is equipped to produce formulations utilizing *all* the advantages of *both*. This experience and knowledge is made available to you through the MGK "Scientific Way" which includes the pre-testing of basic ingredients, synergists and formulas. The result is better products—and larger profits—for you as a manufacturer.

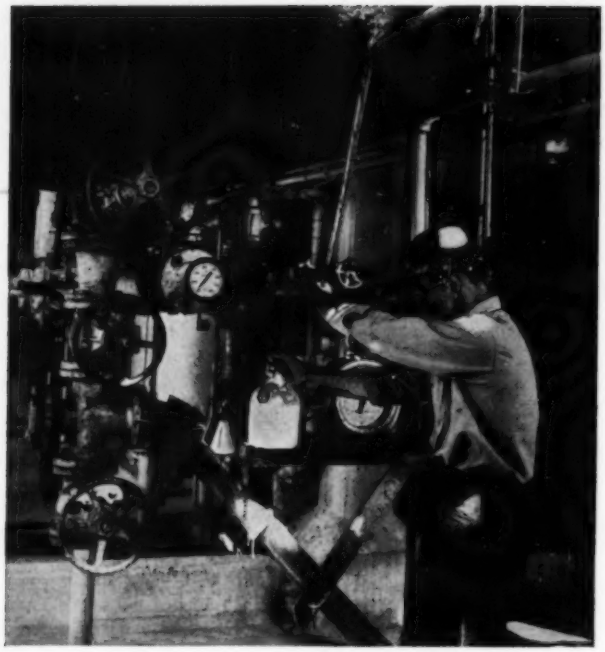
Whether your production set-up calls for formulations ready to package, partly-completed formulations or pure toxicants, MGK quality and MGK "know-how" will be of value. Write for help on any problem involving the manufacture, packaging or merchandising of insecticides.

Use MGK Formulations

McLAUGHLIN GORMLEY KING COMPANY

MINNEAPOLIS, MINNESOTA

SANTOPHEN 1
Kills germs...
puts life into sales
If you want an effective germicide for use in disinfectants or cleaning compounds—a germicide that *sells*—try Santophen 1. This proved product is already being used in surgical soaps, laundry detergents, rug shampoos, cleaners for rest rooms and formulations for use in hospital housekeeping chores.
Available as both solid flakes and solution, Santophen 1 offers these five major advantages:
1. It is a single, stable compound with purity above 98%.
2. It is a potent bactericide, having phenol coefficients in the order of 150 to 200 against standard test organisms.
3. It is highly toxic to fungi, killing in concentrations as low as .002%.
4. It has low toxicity to higher animals. Properly formulated in usage strength, it shows no indication toward skin irritation or sensitization.
5. It is easy to handle, light in color, nonstaining in solutions, with faint, nonpersistent odor.
For your copy of a new booklet, "Santophen 1—Versatile Germicide," write to MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 800 North Twelfth Blvd., St. Louis 1, Mo.
Santophen: Reg. U.S. Pat. Off.
SANTOPHEN 1
MONSANTO
CHEMICALS — PLASTICS
Serving Industry . . . Which Serves Mankind



INDUSTRIAL ODORANTS

Soap
Synthetic Detergents
Cleaning Fluids
Waxes
Petroleum Derivatives
Insecticides
Deodorants
Moth Specialties
Disinfectants
Polishes

During the past few years the perfume industry has been called upon to expand and diversify its traditional activities to include the vast new field of industrial odorants. If you manufacture any of the items on this check list in **cake, powder, liquid, paste, aerosol** or **syrup** form — D&O has the fragrance that will add shining new sales appeal at little extra cost. Write today for catalog, samples and specific information.

D&O ESTABLISHED 1893 REG. U. S. PAT. OFF.

DODGE & OLCOTT, INC.

180 Varick Street • New York 14, N. Y.

Sales Offices in Principal Cities

ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES • VANILLA • FLAVOR BASES

Something improved! Something new!

Developed for you in 1952 to increase sales, increase profits and increase customers in 1953!

Washburn's Deep Tone Cleaner . . .
CLEANS — POLISHES — PRESERVES — DEODORIZES . . . ALL IN ONE CLEANING OPERATION.

Deep Tone as indicated by its trade name cleans DEEP, floats dirt away and enhances the appearance of floor surfaces with natural tone. You can develop a highly profitable business with this most modern liquid detergent. Only Deep Tone does all necessary jobs in one operation. For complete information, write today .

REGIONAL WAREHOUSES IN:
Los Angeles • San Francisco • Denver • Seattle • Atlanta • Dallas

T. F. WASHBURN COMPANY

GREATER

"SHELF-STABILITY"

FOR NO-RUB WAXES WITH

MANTROSE

#65 REFINED WHITE SHELLAC

GLOSS

WATER RESISTANCE

DURABILITY

LEVELING

ANTI-SLIP

Leading manufacturers of water emulsion waxes and polishes have adopted Mantrose Shellac because of its high quality, uniformity and stability.

Your "Q" to Quality

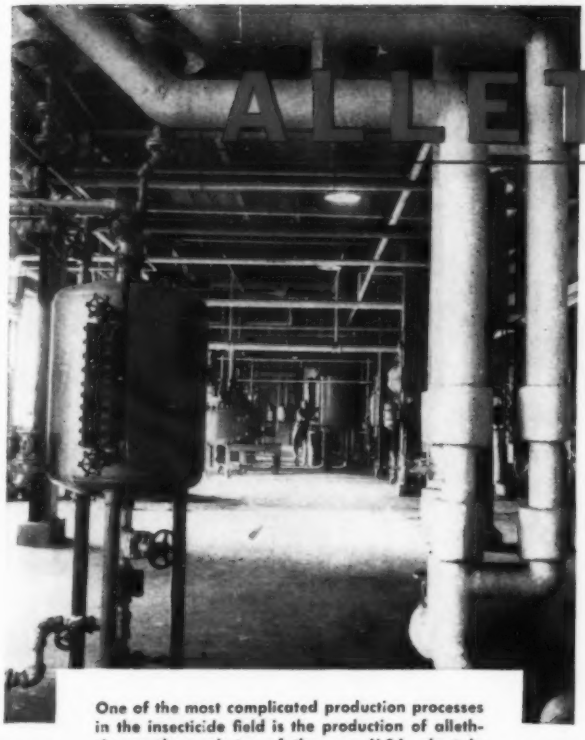
THE MANTROSE CORPORATION

Importers • Bleachers • Manufacturers

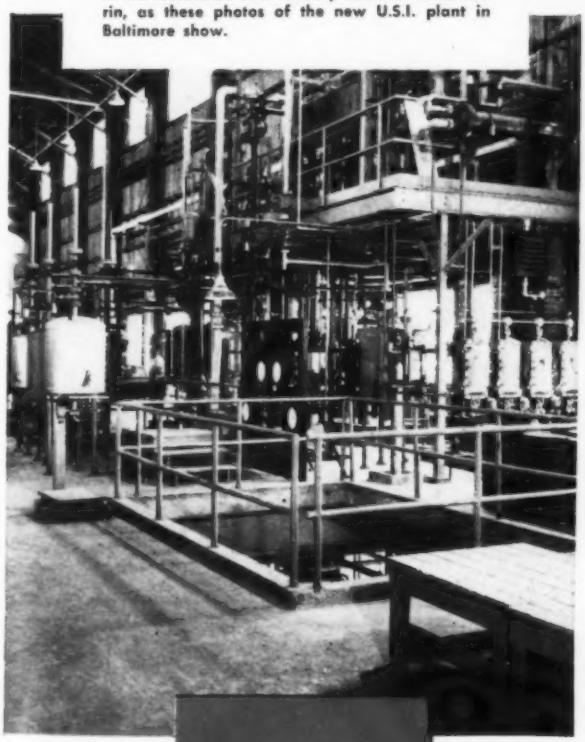
138A FORTY-FIRST STREET, BROOKLYN 32, NEW YORK

Agents in Principal Cities:

Allied Basic Chemical Co., Toronto, Canada
J. A. Castro, Havana, Cuba
J. H. Hinz Company, Cleveland, Ohio
Harry Holland & Sons, 9 So. Clinton St., Chicago, Illinois
James O. Meyers & Sons, Buffalo, New York
E. M. Walls Co., San Francisco, California
Allied Basic Chemical Co., Montreal, Canada
C. M. Durbin Company, Cincinnati, Ohio
W. D. Hodger Co., Boston, Mass.
R. L. Kelley, Danbury, Conn.
H. C. Ross, Burbank, California



One of the most complicated production processes in the insecticide field is the production of allethrin, as these photos of the new U.S.I. plant in Baltimore show.



ALLETHRIN

joins the BIG LEAGUES of insecticides

New U.S.I. Plant Increases Supply for Industry Throughout the World

Large-scale production of allethrin from the new U.S.I. plant at Baltimore signals the arrival of allethrin in the major leagues of the insecticide industry. After serving an apprenticeship of several years in small scale production, allethrin can now assume its rightful place in insecticide formulations. Allethrin is a synthetically-produced chemical similar to pyrethrins.

As a supplement to pyrethrins, allethrin is a "natural" for the U.S.I. line of insecticides because U.S.I. has had long experience in the development and formulation of low toxicity insecticide chemicals. However, allethrin is not a substitute for pyrethrins, because their action and effectiveness differs according to the insects involved, method of application, synergist used and other factors.

Allethrin has found its greatest immediate usefulness in household aerosols and sprays designed primarily for the control of flies. As a result, U.S.I. Research has developed and tested various combinations of allethrin and/or pyrethrins with piperonyl butoxide as a synergist and has approved formulas and complete formulations available for the industry. In addition, the individual chemicals, or combinations of allethrin, pyrethrins and piperonyl butoxide are available. Combinations of pyrethrins and piperonyl butoxide are known by the U.S.I. trade name Pyrenone*, and the name Pyrenone appears on the label of many leading insecticide brands.

Other uses of allethrin for which the potential is now being explored indicate it will be of value to the entire pest control field, not only in America but throughout the world. U.S.I. has established worldwide leadership on low toxic insecticide chemicals.

Now, with the increased supply of allethrin, U.S.I. is able to offer the pest control industry still greater flexibility, effectiveness and economy in insecticides.

*Reg. U. S. Pat. Off.

For information on allethrin, Pyrenone, pyrethrins, piperonyl butoxide or other low-toxic insecticides, call or write the U.S.I. office nearest you.

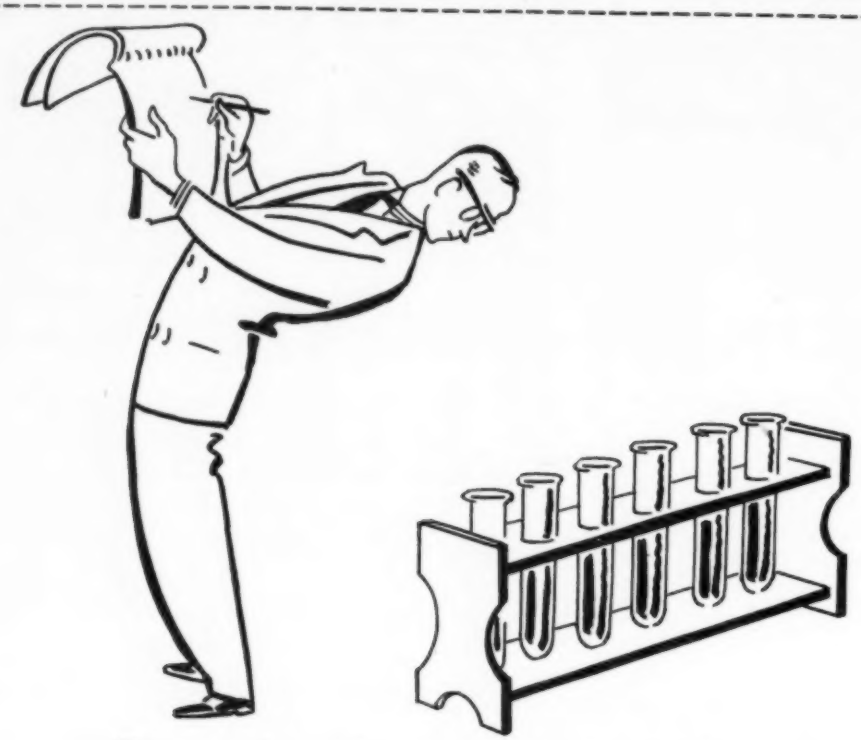
U.S.I. INDUSTRIAL CHEMICALS CO.

Division of National Distillers Products Corporation

120 Broadway, New York 5, N. Y. *Branches in all Principal Cities*

In Canada: Natural Products Corporation, Toronto, Montreal and Vancouver.

RESINS MEMO: To Manufacturers of Emulsion Waxes



Durez bends over backwards to help you improve your formulas . . .

DUREZ 219

A TERPENE PHENOLIC, oil-soluble, high-melting, low-viscosity thermoplastic resin, widely used in the no-rub or dry-bright type of emulsion polish.

COMPATIBILITY WITH WAXES is excellent with respect to carnauba, candelilla, and beeswax, and *very good* with respect to oxidized microcrystalline.

PROPERTIES IMPARTED to the product by this resin include water resistance, hardness, improved gloss, and some slip resistance. In addition to improved properties, inclusion of the resin in the formula effects a saving in raw material cost.

● Looking for a formula that will put more sales appeal in your no-rub polishes? Talk it over with Durez! First, you'll get the right resins. We have them, both low and high melt types . . . in fact Durez phenolics were the first completely successful resins in the wax emulsion field. Second, you'll get the benefit of sound experience. Over the years we have helped many manufacturers to work out the best solutions for varied requirements. We've been specializing in phenolics for more than 30 years, and we like to lean over backwards wherever our services can aid our customers in achieving the properties they want for their emulsion waxes. Write Durez Plastics & Chemicals, Inc., 402 Walck Road, North Tonawanda, N. Y.

DUREZ — PHENOLIC RESINS — MOLDING COMPOUNDS · INDUSTRIAL RESINS · PROTECTIVE COATING RESINS

PHENOLIC RESINS THAT FIT THE JOB

where balance is everything

Insecticides, household deodorants, detergents . . .
there's usually an odor problem here that knowing perfume chemists can solve. But it's a fine matter of balance to develop a perfume, artfully designed to mask and cover when necessary then to completely disappear when the job is done, leaving no residual, perfumey pall.
Striking that happy balance is a trick we've been doing for years.

MANUFACTURERS AND CREATORS OF THE FINEST PERFUME MATERIALS

van ameringen · haebler, inc.

521 WEST 57th STREET NEW YORK 19, N. Y.

SAF-FLOR

. . . a new anti-slip floor wax

Emphasis on
. . . High Gloss!
. . . Durability!
. . . Safety!

Have you tested a sample of this new anti-slip, high-gloss floor wax? If not, let us send you a sample today!

An entirely new safety wax based on a special patented copolymer. Water resistant in 12-24 hours. Easy to apply and remove. Withstood damp mopping for 25 consecutive days. Freezing does not impair gloss more than 10%.

Available to the trade under SAF-FLOR label or your own private brand. For full information, write to

SHAWMUT SPECIALTY COMPANY
315 Centre Street **Boston, Mass.**

DEVELOPED FOR THE ARMED FORCES • NOW AVAILABLE TO YOU

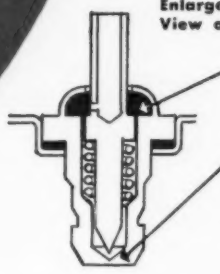
NEW DILL LEAK-PROOF AEROSOL VALVES

GUARANTEES PERMANENT "SHELF-LIFE" FOR SELF-DISPENSING PRESSURIZED PRODUCTS

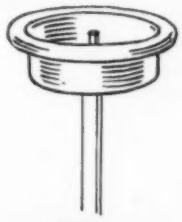
*U.S. PAT. APPLIED FOR

The sensational new Dill Aerosol Valve completely eliminates the serious problem of "duds" in pressurized products. *Gas positively cannot escape through this new non-pierced valve. Nor can contents of the can touch and corrode the valve shut-off seal.* Pre-use leakage that causes costly stock loss and user dissatisfaction is impossible. Check this money-saving, highly valuable merchandising feature for your product now—and the important further advantages in filler production operations. We invite your request for test samples and the consultation of our engineers.

Enlarged Cross-Section View of Dill Valve



Full Enclosure of Shut-off Valve Seat
PREVENTS CORROSION
Non-Pierced Valve Opening.
POSITIVELY LEAK-PROOF
Gas leakage is impossible because valve opening is not pierced until ready to use.



VALVE UNIT CAN CLOSURE
No button on closure eliminates damage to cans caused by button interference with crimping operation.
Valve unit available for any type or size of can.

Adds Attractive Salability to Your Product

NEW DISPENSING UNIT WITH PROTECTIVE CAP
Completely pre-assembled for quick, easy attachment to can closure. Includes dispensing button, collar with spray guide, protective cap and insert tag with easily understandable directions for piercing valve and operating spray. Non-turnable button locks spray opening in collar guide.
Available in any color or combination of colors and with your name molded in cap on minimum orders.

INSURES THE SHELF STABILITY OF YOUR PRODUCT—

THE VALVES WITH *Super Seal* SAFETY

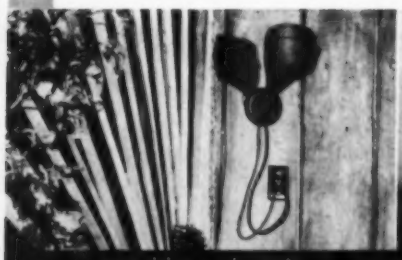
DILL AEROSOL VALVES

THE DILL MANUFACTURING CO. CLEVELAND 5, OHIO

Only FORMULATORS!

ORTHO Lindane*

does all these jobs—so well!



vaporizing equipment

household pest control

livestock pest control

human parasite control

protects food processing plants

—and gives you all these extras:

GUARANTEED GAMMA —minimum pure gamma isomer 100%. ORTHO Lindane assures you of true Lindane quality actually higher than minimum Government requirements for pure Lindane.

EASY FORMULATIONS —easily handled—easily formulated as a spray or dust. ORTHO Lindane particles are dry, free-flowing. Easily ground to micro-size.

STABILITY —chemically stable.

MANUFACTURING "KNOW-HOW" —made exclusively by the original manufacturers of Lindane in the U.S.A.

*ORTHO Lindane, a real profit-maker, is a truly amazing insecticide offering high potency, rapid action, and residual control. Kills more than 200 varieties of insects by contact, vapor action, and stomach poison.

always — you profit with ORTHO

For complete information, "Story of Lindane," write:

CALIFORNIA SPRAY-CHEMICAL Corp.

Portland, Ore.
Sacramento, Calif.
San Jose, Calif.
Fresno, Calif.
Whittier, Calif.
Caldwell, Idaho
Maryland Heights, Mo.
Oklahoma City, Okla.
Orlando, Fla.
Shreveport, La.
Fennville, Mich.
Elizabeth, N.J.
Medina, N.Y.
Goldsboro, N.C.

Home Office: Richmond, Calif. • 25 Additional Branch Offices

T.M. REG. U. S. PAT. OFF.: ORTHO

World leader in scientific pest control

ORTHO®

SCIENTIFIC PEST CONTROL

when it
smells better...
it sells
better!
INSECT
KILLER
KEREX
RE-ODORANTS
First choice for pleasantly perfuming bulk and hand spray insecticides at a cost of...
LESS THAN 2¢ PER GAL.
FELTON
Quality

For Your Compounds
and Formulations

The Best is Cheapest

in the long run!

Use only the original quaternary ammonium germicide

GENUINE

Roccal

Reg. U. S. Pat. Off. and Canada BRAND

SANITIZING AGENT

THE GERMICIDE OF 1,000 USES

NOW OFFERED TO MANUFACTURERS IN 50% CONCENTRATION

Quaternaries are being used more and more as germicides and fungicides in widely diversified fields:

TAVERNS
MILK PRODUCERS
POULTRY FARMS
EGG BREAKING AND DRYING PLANTS
REFRIGERATION PLANTS
FROZEN FOOD PACKERS
BAKERIES
BATHING PLACES
BARBER SHOPS
HOSPITALS
LAUNDRIES

Sample and literature on request.

FOR YOUR PROTECTION

Look for our laboratory Control Number
In proper dilutions ROCCAL IS:

POTENT	TASTELESS
STABLE	ODORLESS
NON-POISONOUS	NON-CORROSIVE

NON-IRRITATING TO SKIN

Sterwin Chemicals Inc.

SUBSIDIARY OF STERLING DRUG INC.
1450 BROADWAY, NEW YORK 18, N. Y.

OFFICES IN PRINCIPAL CITIES THROUGHOUT THE UNITED STATES

HOW MUCH ARE YOU LOSING?

BY *NOT* REVISING YOUR AEROSOL FORMULA?

Our latest approved insecticide concentrates are inexpensive—cost per bomb for active ingredients is but a few cents.

IS PERFORMANCE A PROBLEM?

Even the DDT-resistant fly is controlled by the sulfoxide-pyrethrins combination; roaches and ants, too!

HOW ABOUT ODOR?

The isome-allethrin combination and the sulfoxide-pyrethrins combination are mild and pleasant, easily perfumed.

AND IRRITATION?

No problem with isome or sulfoxide — and remember, no perfume can mask irritation to the nose and throat.

TOXICITY?

Isome and sulfoxide are of the same low oder of toxicity as pyrethrins and allethrin.

EASE OF HANDLING

We supply the complete concentrate—ready for mixing with the propellant. Combinations of any of the following are available: Allethrin — pyrethrum — isome — sulfoxide — DDT — methoxychlor — Lethane 384 — Thanite.

BIOLOGICAL DATA

We substantiate the effectiveness of our approved formula with biological data.

YOU CAN'T LOSE BY DISCUSSING YOUR FORMULATION WITH US.

WRITE TODAY FOR DETAILS.

S. B. PENICK & COMPANY

50 CHURCH STREET, NEW YORK 8, N. Y.
Telephone, COrtlandt 7-1970

S. B. PENICK & COMPANY · ASHEVILLE · NEW YORK · CHICAGO ·

735 WEST DIVISION STREET, CHICAGO 10, ILL.
Telephone, MOHawk 4-5651

For Highest Knock-down Rating and Lowest Cost . . .

LETHANE 384

Your customers judge the quality of your insecticides by their knock-down speed. Knock-down effectiveness is the deciding factor as to whether your product meets with their approval. With LETHANE 384 in your formulations you are assured of getting maximum knock-down efficiency. The fastest acting knock-down ingredient per unit of cost in use today for household, cattle and dairy sprays is still LETHANE 384. You should consider its use in:

HOUSEHOLD LIQUID SPRAYS—Low (and therefore economical) concentrations of LETHANE 384 in household liquid insecticides complement the insecticidal power of chlorinated compounds. Liquid sprays made with LETHANE 384 and chlorinated compounds are useful for all-around household insect control.

AEROSOL PRODUCTS—LETHANE 384 is compatible with all ingredients approved for use in household insecticide aerosols. By using only 2% of LETHANE 384, aerosols with high knock-down rating at lowest cost are easily formulated.

CATTLE AND DAIRY LIQUID SPRAYS—Formulations prepared with LETHANE 384 alone, or LETHANE 384 and a suitable chlorinated insecticide give fast acting and high kill products for use on livestock, dairy barns and milk rooms.

CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

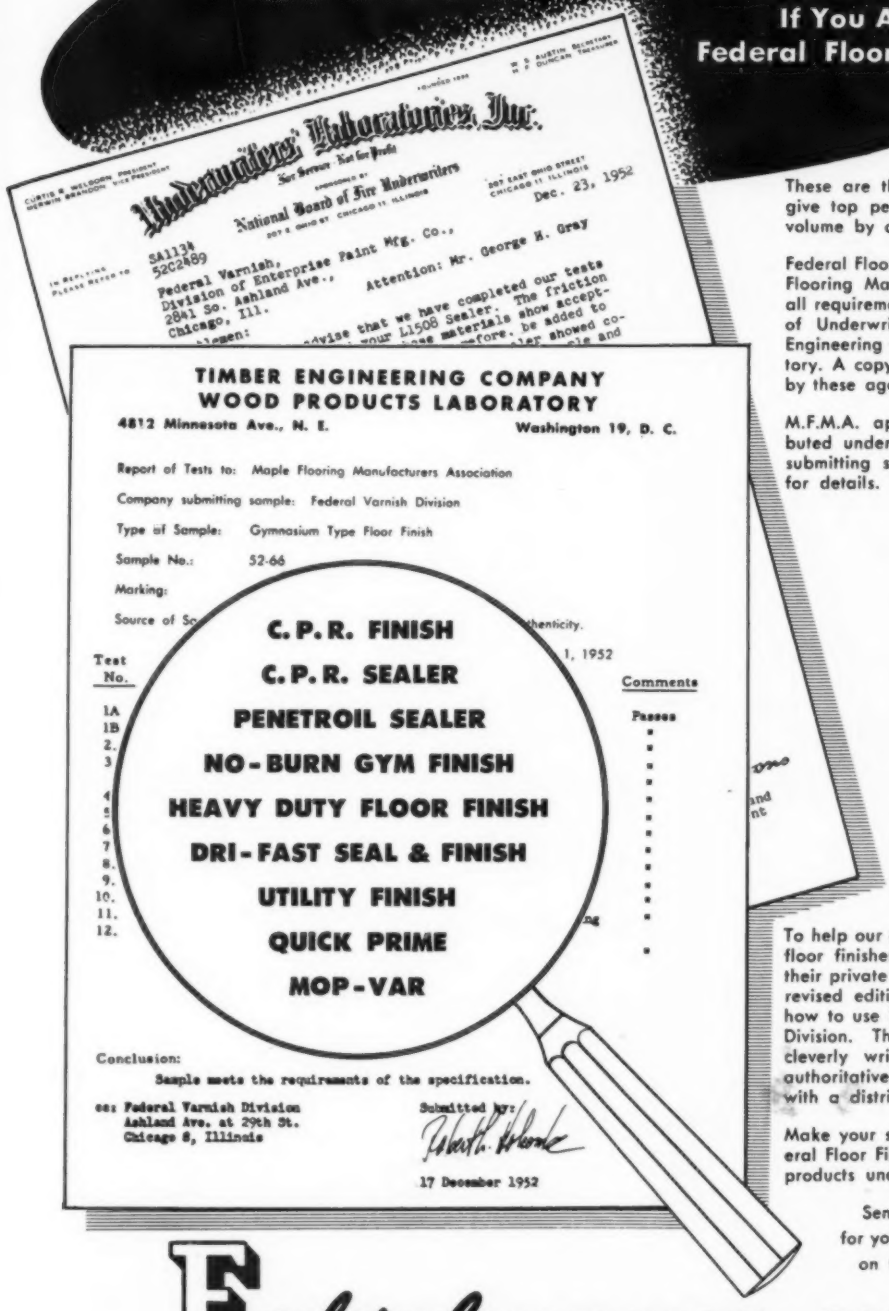
Representatives in principal foreign countries

LETHANE is a trademark, Reg. U. S. Pat. Off. and in principal foreign countries.

YOU'RE TWO STEPS AHEAD WHEN YOU

SELL APPROVED... PROVED PRODUCTS!

. . . And You'll Be Ahead With Plus Business in '53 If You Are Selling Federal Floor Finishes



HERE'S WHY:

These are the quality floor finishes designed to give top performance . . . stimulate your sales volume by creating **repeat** business.

Federal Floor Finishes are **approved** by the Maple Flooring Manufacturers Association! They meet all requirements set up by the testing laboratories of Underwriters Laboratories, Inc. and Timber Engineering Company — Wood Products Laboratory. A copy of laboratory test reports, released by these agencies is yours upon request.

M.F.M.A. approval for Federal Products distributed under private label may be obtained by submitting samples for test. Write or phone us for details.

To help our distributors do a better job of selling floor finishes and maintenance materials, under their private brand and label, we offer this 1953, revised edition of "What to use on floors and how to use it" — published by Federal Varnish Division. This invaluable pocket-size manual, cleverly written and illustrated, is filled with authoritative information and is designed to tie-in with a distributor's private label.

Make your selling job easier by distributing Federal Floor Finishes. You'll be proud to have these products under your label.

Send to Federal Varnish Division for your free copy of "What to use on floors and how to use it."

Federal VARNISH DIVISION

2841 S. Ashland Ave., Chicago 8, Ill. *The Pioneers in Floor Sealers -- Finishes and Waxes*

Methoxychlor

. . . makes insects dance a weird fandango. It puts the fog in their brains, the fall in their arches, and the click-clack in their sacroiliacs. There's a general unhinging of the joints and then the long sleep from which there is no return. Geigy Methoxychlor knocks down a variety of household pests and keeps them down. Ask many of the leading aerosol and spray formulators.

ORIGINATORS OF

Geigy

REG. U.S. PAT. OFF.

DDT INSECTICIDES

GEIGY COMPANY, INC.

89 BARCLAY STREET NEW YORK 8, N. Y.

Aberdeen, N.C.; Burlington, Iowa; Colorado Springs, Colo.; Elkton, Md.; Fresno, Calif.; Houlton, Me.; Leland, Miss.; McGregor, Tex.; Orlando, Fla.; Walla Walla, Wash.

Warwick Wax Company
originators, pioneers and leaders
of the oxidized petroleum wax industry
are proud to present
their new development in wax

CARDIS-ONE

first emulsifiable
petroleum wax with

PENETRATION ONE - TWO

melting point 195-200° F.

- **CARDIS-ONE** the first emulsifiable petroleum wax with penetration one-two.
- **CARDIS-ONE** the hardest emulsifiable petroleum wax on the market.
- **CARDIS-ONE** gives greatest wear - resistant films.
- **CARDIS-ONE** gives scuff-proof films with highest gloss and durability.
- **CARDIS-ONE** is ready for you now. Ask for samples, specifications, suggested formulations, technical service.
- **CARDIS-ONE** is produced at the Warwick Wax Refinery, Chanute, Kansas, home of Cardis Waxes, America's most widely-used emulsifiable petroleum waxes.

WARWICK
WAX
Company, Inc., Subsidiary

CHEMICAL CORPORATION

10TH STREET AND 44TH AVENUE, LONG ISLAND CITY, N.Y.

Shellac Sends Floor Polish Sales Soaring!

For a Better SELF-POLISHING WAX

use the Best of all Shellacs

ZINSSER *Refined Wax-free* VAC-DRY

Self-polishing waxes with high shellac content are setting new sales records, because of the higher gloss and harder surface-film shellac gives.

But no formula for self-polishing waxes can be any better than the bleached, wax-free Refined white shellac from which they are made. That is why you cannot afford less than the best.

If you have not made comparative tests lately, don't fail to try Refined Wax-Free Vac-Dry White Shellac Gum. It will give a higher gloss, longer wear and have better anti-slip and self-leveling properties. What's more, since Refined Wax-Free Vac-Dry is extremely light in color, it will make for a lighter wax film. And because of its exceptionally low acid value, it requires less alkali to go into solution, which means greater water resistance. Finally, no fear of quick deterioration of your bleached shellac gum in its dry state.

The superiority of Refined Wax-Free Vac-Dry is the result of bleaching only the best and most suitable Orange Lacs combined with the experience William Zinsser & Co. has gained in 102 years of bleaching shellac. For further information, or for generous testing samples, write us on your company letterhead.

Refined Wax-free

VAC-DRY Shellac

LOOK FOR THE BULL'S EYE BRAND TRADEMARK

WILLIAM ZINSSER & CO., INC.

516 West 59th Street, New York City, New York

319-323 N. Western Avenue, Chicago, Illinois

INDEPENDENT LABORATORY TESTS PROVE

thanite®

KNOCKS DOWN 92.1 PER CENT FLIES
WITHIN THREE MINUTES

Household-spray users want to see flies knocked down—and quick. Tests conducted on 2500 flies by one of the foremost independent biological testing laboratories proved that 3 per cent Thanite knocked down over 92% in the first three minutes.

Peet-Grady tests show that Thanite's quick knockdown and high kill (AA grade rating) make it a superior household spray. Formulators now using Thanite say you can't beat it for economy!

For comparative testing tables and technical data, write for the booklet, "Take A Good Look at Thanite."

Naval Stores Department

HERCULES POWDER COMPANY

961 Market Street, Wilmington 99, Delaware

Announcing....
A Group of Prizewinners

Courtesy: Dodge, Inc.

Now added to the reliable source of quality maintenance chemicals for the trade, Baird and McGuire is proud to present a line of waxes, each developed and manufactured under precise laboratory control and composed of the finest ingredients.

Baird's MICARN — Slip Resistance Self-Polishing Wax.

Baird's WAXSOL — Solvent Paste Wax. Baird's Professional Grade—Solvent Paste Wax.

Baird's WAXSOL — Liquid Solvent Wax.

— Write Today for Samples and Prices —

Baird & McGuire, Inc.
HOLBROOK, MASSACHUSETTS

Baird's

CREATORS AND COMPOUNDERS OF THE BEST IN CLEANERS AND DISINFECTANTS FOR OVER 44 YEARS

PAINT REMOVERS

By Milton A. Lesser

THE continuous production of improved paint removers is the result of an interesting situation. On the one side are the paint technologists who constantly utilize new synthetic resins and the like to produce tougher, more resistant and more durable protective finishes. On the other side are the men who make it their business, through the use of new solvents and such, to make better, more efficient and faster-acting paint strippers.

Paint removers have, of course, been in use for many years and much data concerning the older compounds was given in a review (1) in *Soap and Sanitary Chemicals*, published in 1946. Since then, as shown in various technical reports and especially in the patent literature, there has been considerable progress in the formulation of paint removers to meet the challenge of new coatings. It may be said that the modern trend in the development of these products began during the war when special compounds were devised to remove camouflage paints from aircraft quickly. Work to improve paint removers has continued under the sponsorship of both the government and private industry.

In general, the newer products are more complex than their predecessors. Nonetheless, alkalis and solvents still remain the chief active ingredients, with the other components serving to enhance their efficiency. On occasion, the effects of both types of active agents are employed simultaneously in a single preparation. Sometimes other kinds of paint-disintegrating materials are employed in remover formulations.

Although the surface active agents produce their effects by somewhat different mechanisms, the end result is the same in all cases. This is a loosening of the paint film so as to permit its removal by scraping or by flushing with a stream of water. A modern, scientifically formulated paint remover should be able, not only to penetrate multiple paint coatings, but to act on different types of coatings as well. Of course there is no such thing as a universal paint remover. Hence it is sometimes necessary to develop special strippers for certain kinds of finishes. (2)

Used as solutions, gels or pastes, paint removers may be applied by dipping, spraying, flowing, or brushing. Adequate precautions must be taken, through the use of protective clothing and related devices, to avoid injury to those applying these powerful chemical compounds. Protection should also be given, especially when spraying, to surfaces where the stripping action is not desired. This can be done through the use of masking materials and the like.

How Remover Functions

THE remover is allowed to remain on the paint long enough to react with the coating and loosen it. The time required will depend, of course, on the type and concentration of the stripper and the thickness and kind of paint film. Blistering, lifting and wrinkling are signs that the remover is doing its work. After a suitable interval, the loosened and disintegrated paint may be removed by scraping or flushing with a stream of water. Sometimes, paint removers are classified as "scrape-off" and "flush-off" products. (3) The scrape-off type of remover is usually designed for use by the smaller consumer and home renovator. They are generally employed for removing paint from furniture, walls, floors and the like. For industrial purposes, the trend is toward products that permit the loosened film to be removed by water under pressure. Hosing speeds the operation and reduces wages for labor.

More commonly, however, paint removers are classed according to their chief active ingredients:—alkalies or solvents. The alkaline type paint remover has long been popular and still finds frequent use in small scale procedures. In industrial practice, however, alkaline materials are generally used in tanks; the articles being suspended in hot solutions of the removers. Of course, the use of such strippers is restricted to alkali-resistant metals or alloys. (4) Thus, they are suitable for iron and steels, but should not be applied to aluminum, brass, zinc and similar non-ferrous metals. However, paint, varnish and lacquer coatings are easily stripped from aluminum and aluminum alloys, without attack on the metal, by immersion for a suitable period in a hot aqueous solution of a mixture of sodium metasilicate, sodium trisilicate and sodium resinate. (5)

Various alkalies have long had valued employment in paint removal procedures. Caustic soda is an old standby and is very efficient when properly used. It has been suggested (6) that a small amount of soap in the solution often speeds up the action when caustic soda is used to remove paints and lacquers from metal surfaces. Sometimes a steam gun is used with the caustic solution in the hot water tank.

In addition to sodium hydroxide, other materials like soda ash, trisodium phosphate and sodium metasilicate find wide utilization. Solutions of alkalies are generally made up at the point of use in industrial practices, but

suitable consumer packages can also be made available. For example, it has been mentioned (7) that mixtures of powdered caustic soda and inert filler can be marketed in air-tight containers; the label providing instructions on the amount of water to be added for specific uses. Adequate precautions should also be given on such consumer packages.

Lignin-Alkali Types

OF interest in this connection are the several lignin-alkali paint, varnish and lacquer removers described in a foreign patent.(8) Typical is a paste consisting of:

Lignin, finely ground	3 parts
Caustic soda, pulverized..	1 part
Water	3 parts

Using a rubber brush, this paste was placed on an iron girder covered with three to five mm.-layers of two coats of red lead paint and five of linseed oil paint. After six to 12 hours, the paste dried in the form of small thin leaves adhering loosely to the girder. The paint could then be rubbed off with a cloth or brush or washed off with water and a sponge. Additional examples of paint removers based on alkalies are offered in other recent European patents.(9,10) Rather interesting is the use of lime in these preparations, together with other more-or-less standard ingredients.

Solvent Type Removers

MAJOR interest, however, is centered about products based on the action of solvents. Newer preparations of this class show many advantages over older paint removers, which were based on acetone, benzene, alcohol and the like. Modern formulaters of solvent type paint removers try to produce mixtures that will have such properties as: (a) rapidity of action, (b) low volatility, (c) proper viscosity, (d) non-toxicity, (e) low flammability, (f) clean rinsability, (g) non-corrosiveness, and (h) stability during storage.(7)

Although various materials, such as cyclohexyl pseudoleyulinate, (11) have been proposed as paint removers, primary consideration seems to be given to the chlorinated hydrocarbons. These not only reduce the flame hazard associated with the older paint removing solvents, but are efficient paint strippers as well. In evaluating the efficiency of such solvents, Kuentzel and Liger(4) found that the time required to remove a paint film increased in the following order: methylene chloride (dichloromethane), ethylene dichloride, trichlorethylene, monochlorbenzene, carbon tetrachloride, *ortho*-dichlorobenzene, propylene dichloride and 1,2,4-trichlorobenzene.

While wetting agents and coupling agents are new in paint remover formulations, need for thickening agents for stripper applications has been seen

These workers also reported that the stripping action could be further improved through the use of activating agents. For example, they found that stripping speed of the fastest of these solvents, methylene dichloride, could be improved by saturating it with water. They observed that the stripping time could be further decreased by adding a little acetic acid to the solvent. In his report on the extensive work done for the United States Air Force, Douglass(12) stated that ammonium hydroxide and monoethylamine are effective activating agents for certain paint remover formulations. Other substances may be used as activators; these substances being employed on non-absorbing metal surfaces to assist the solvent in striking through the paint layers.(13)

However, the problem of toxic vapors must be taken into consideration when chlorinated hydrocarbons are employed. Hence the importance of adequate ventilation is constantly being stressed.(2,5) Pertinent with respect to this hazard is the following paragraph(14) from the Bureau of Aeronautics specification (52 R15) which covers non-inflammable water-rinsable type paint remover: "The product shall be free from abrasive gritty material, inert fillers, benzene, carbon tetrachloride, perchlorethylene, trichlorethylene, dichlorethylene, ethylene dichloride and any other chlorinated solvents which may prove dangerously corrosive or toxic under extreme conditions of application." The specification also requires that, when used according to directions, the product shall not produce obnoxious vapors in such concentration as to become an annoyance or a medical hazard.

This specification provides standards for a paint and varnish remover "consisting of organic solvents, evaporation retarders, and other ingredients to produce a satisfactory product." From this, and from other data sources,(2) it is evident that evaporation retarders are important components of paint removers. As the term implies, retarders help to reduce the volatility of the solvents so that they may act more efficiently on the paint films.

A wax usually serves as the evaporation retarder. Although other waxes have been used, it is generally recognized that ordinary paraffin wax is quite suitable; the white material being preferred. For example, on the basis of extensive experience, Douglass(12) stated that paraffin is the most practical material to use in retarding the evaporation of the solvents.

The proportion of paraffin wax in a formula may range from about one to three per cent.(7) Kuentzel and Liger(4) found that the addition of small amounts (e.g., two per cent) of paraffin wax is enough to enable the remover to pass most evaporation rate specifications. The amount of paraffin must be carefully controlled since an excess results in a poorly balanced product that may leave a film of wax on the paint-free surface. Such a film interferes with subsequent painting and must be washed off with alcohol, benzene, turpentine or other wax solvent. Too much wax may also reduce the stripping power of the solvents.

To improve compatibility and rinsability, and to keep the wax well blended, coupling and wetting agents are sometimes added to the formula. Thus, Kuentzel and Liger found that

ethylene glycol monobutyl ether and petroleum sulfonate help to yield clear homogeneous, stable products with good rinsability.

Obviously, there is more to a modern paint remover than a mixture of solvents plus an evaporation retarder. The standards for such a product were clearly indicated in the following statement from the report(12) prepared for the United States Air Force: "An effective paint remover which can be used under field conditions should be non-toxic, homogeneous, and of such a consistency that it can easily be applied by brush, spray or flow, forming a film which will not rapidly drain off a vertical surface; contain a solvent or solvents which will, in one application of the remover, rapidly destroy the adhesion between the paint film and the metal surface; have a low evaporation rate; a high degree of rinsability leaving the metal surface clean; and not be corrosive to steel, tin or aluminum."

Required Components

ACCORDING to Douglass, the man responsible for this report, a study of these requirements indicates that an effective paint remover should have the following components: (a) an active solvent or solvent mixture, (b) a water-soluble thickening agent, (c) an activating agent, if necessary, (d) a material, such as wax, that will form a protective surface on the remover film to retard evaporation of the solvent, (e) a wetting agent to aid in dispersing the solid materials, to increase the solvent penetration of the paint film and to increase rinsability, and (f) a coupling agent, if necessary, to improve the dispersion.

After a series of tests to evaluate the most suitable ingredients, it was found that sodium petroleum sulfonate, alkyl aryl sulfonate or substituted aromatic sulfonic acid could be used as wetting agents in paint removers. Methyl alcohol, ethyl alcohol, n-propyl alcohol, isopropyl alcohol or n-butyl alcohol may serve as coupling agents. Glycol monoethyl ether, glycol monobutyl ether and hexylene glycol may also be used for this purpose.

While wetting agents and coupling agents are comparative newcomers to paint remover formulations, technologists in this field have long recognized the need for thickening agents to permit application of the stripper to vertical, overhead and curved surfaces. Over the years, a number of materials were proposed for increasing the viscosity of paint removers, including wood flour, starch, inert powders, rubber, metallic soaps and especially various cellulose derivatives, like nitro-cellulose, cellulose acetate and methyl cellulose. There seems to be agreement among some investigators (4,12) that methyl cellulose is a superior thickening agent which lends itself to the production of smooth paint removers.

This is well indicated in the control paint remover developed as a basis of comparison for products meeting the requirements of Air Force Specification 14119-B. Also used(12) to evaluate various alternate raw materials, this control remover consists of:

	Percent
Methylene chloride	76.5
Methyl alcohol	6.5
Ethylene glycol monoethyl ether (Cellosolve*)	4.0
Methyl cellulose (medium viscosity)	2.0
Wetting agent (sodium petroleum sulfonate)	5.0
Paraffin wax	3.0
Water	3.0

(*Carbide and Carbon Chemicals Corp., New York, N. Y.)

Accepted after tests on more than a score of formulas, this control remover is rapid acting, highly efficient, stable in storage up to six months, non-corrosive and washes off easily under a stream of water. It was found that ethylene dichloride, dichloropentanes or dioxane can replace part of the methylene chloride in this formulation without decreasing the effectiveness of the remover. Such substitution, it was noted, reduced the solvent evaporation rate. The water content can also be varied from zero to 8 per cent without appreciably changing the removal rate or the stability of the formula, but a corrosion inhibitor may be needed if the water content exceeds three per cent.

Considerably simpler is the following paint remover, which is cited by Snell(7) as an example of the scrape-off type of product:

Methylene chloride	90 gal.
Methyl alcohol	10 gal.
Methyl cellulose, 4000 cps.	11 lb.
Paraffin	16½ lb.

The methyl cellulose is thoroughly wet with part of the methylene chloride and then dissolved in the methanol. The rest of the methylene chloride is added, followed by the wax, preferably melted.

More complex and making use of an activator and emulsifying and wetting agent is the following non-inflammable flush-off type stripper that removes almost all common paint, varnish and lacquer films in one to ten minutes:(15)

Methylene chloride	71 gal.
Carbon tetrachloride	6 gal.
Methyl alcohol	12 gal.
Di-triisopropanolamine	9½ gal.
Water	1½ gal.
Methyl cellulose, 4000 cps.	13 lb.
Wetting agent (Areskap 100*).	33 lb.
Potassium oleate	22 lb.
Paraffin (m.p.47-50.6°C.).	16½ lb.

* (Monsanto Chemical Co., St. Louis)

Add the carbon tetrachloride to the methylene chloride, then melt the paraffin and add to this mixture, with agitation. Incorporate the methyl cellulose and stir until it is completely wetted out. Slowly add the methanol until the methyl cellulose is completely dispersed. The oleate and wetting agent are then added, followed by the amine and finally by the water.

The patent literature also offers examples of the use of methyl cellulose as a thickening agent. Kuentzel,(16) for example, describes a composition for removing paint, varnish, enamel and the like as consisting of methylene chloride as the major ingredient, to-

Newer paint removers are more complex than their predecessors, yet alkalis and solvents still are the chief active ingredients in most new products

gether with cyclohexylamine, water and methyl cellulose.

Other workers seem to favor cellulose acetate as the thickening agent. Thus, in combining the old and the new, Packer(17) describes paint remover compositions which will adhere to inclined surfaces by virtue of the presence of high viscosity cellulose acetate and which, because of its efficient action, lessens the need for scraping and permits the loosened paint to be washed away. Such a product may consist of:

Acetone	53.5 parts
Ethylene chloride	25.0 parts
Water	10.0 parts
Lactic acid	3.5 parts
Paraffin wax	1.0 part
Cellulose acetate	3.0 parts
Sulfonated castor oil	3.0 parts
Diamylamine phosphate	1.0 part

Although they mention that other cellulose derivatives may be used, Hutson, Kidd and Blair(18) also emphasize the usefulness of cellulose acetate in paint removers. According to their patent specifications, homogeneous liquid compositions may consist of cellulose acetate, acetone, paraffin wax, a surface active agent (dioctyl ester of sodium sulfosuccinic acid), benzene, tetramethylene oxide, and ethyl acetate.

The patent literature also indicates a trend toward the use of other types of thickening agents. Among these agents are materials which impart thixotropic properties to the paint removers.(19) Such products are gel-like materials that become fluid on shaking or mixing and then become solid again. Certain protein materials are capable of imparting this advantageous characteristic to paint removers.(20)

For example, Baum and Wynkoop(21) recently described a process in which a protein colloid, such as casein, is mixed with an organic amine, like triethanolamine, and some soap and phenolic salts as dispersants. A chlorinated hydrocarbon solvent and an alcohol are added to the mixture to obtain a thixotropic dispersion. Some paraffin wax may also be added. The resulting paint remover is a liquid of low viscosity when applied to the surface, but a gel is reformed once it is applied and this gel will not run appreciably on the surface. After a suitable interval, the stripper and the paint can be removed by wiping or washing with water.

Bentonite and certain of its modifications are also finding employment as thickeners. It has been suggested,(22) for instance, that long-chain amine bentonites, containing 18 carbon atoms, can be used for the preparation of solvent type paint removers. In the removers developed by Peterson and Muller(23) a gel character is given to the products by the addition of octadecyl ammonium bentonite to suitable organic solvents.

Quite interesting are the mixed type paint removers described by Bond and Bernard.(24) According to their patent, sufficient bentonite to form a gel is added to aqueous solutions of sodium or potassium hydroxide. The compositions also contain cresols, naphthenic acids, petroleum oxidation products or other blending agents capable of promoting the solution of organic solvents in the aqueous caustic solutions.

Other patents likewise describe methods by which paint removers may take advantage of both caustic and solvent actions.(2,25) In describing such alkali-organic solvent paint removers, Kuentzel (26) showed how sodium or potassium xylene sulfonate could be used to make single phase homogeneous liquid preparations containing water; a mixture of sodium metasilicate, sodium carbonate and sodium bicarbonate; and ethylene glycol monobutyl ether.

This investigator(27) also found that the stripping powers of methylene chloride could be greatly increased by the addition of small amounts of water and suitable proportions of formic, acetic, propionic, salicylic, butyric, carbolic, benzoic, or cinnamic acid. These paint removers may be rendered more effective by adding a wetting agent and made more convenient to use by incorporating thickening agents, evaporation retarders and the like. In another patent, Kuentzel(28) claimed that the addition of 0.01 to six per cent of water and from 0.1 to 50 per cent of a mixture of equal parts of formic acid and acetic acid similarly stepped up the paint removing ability of such chlorinated hydrocarbon solvents as methylene chloride, ethylene dichloride, 1,1,2-trichlorethane, 1,1,2,2-tetrachlorethane, chloroform, and ethylene chlorhydrin.

Various other new agents have found their way into paint remover formulations. Craver,(29) for example, makes use of a solution containing from 40 to 80 per cent of *gamma*-valerolactone or *gamma* butero'actone in water. Ethyl or isopropyl a'cohol may be included and materials like glycol monooleate or sodium lauryl sulfonate may be added to promote wetting. Pessel(30) employs 2,4-pentanedione in water in his procedure for removing synthetic resinous coatings. After the coatings are softened by this solution, they may be removed by wiping.

In the processes developed by Marling,(31) non-vo'atile, non-inflammable paint and varnish removers are prepared by dissolving a thickening agent, like cellulose acetate, cellulose nitrate or paraffin wax, in diethyl phosphite. According to Bishop and Denton,(32) aromatic nitriles, like benzonitrite or tolunitrite, may be used to remove protective coatings.

In their report on the utilization of furfural, Sweeney and Arnold(33) suggested that a satisfactory paint remover could be made from:

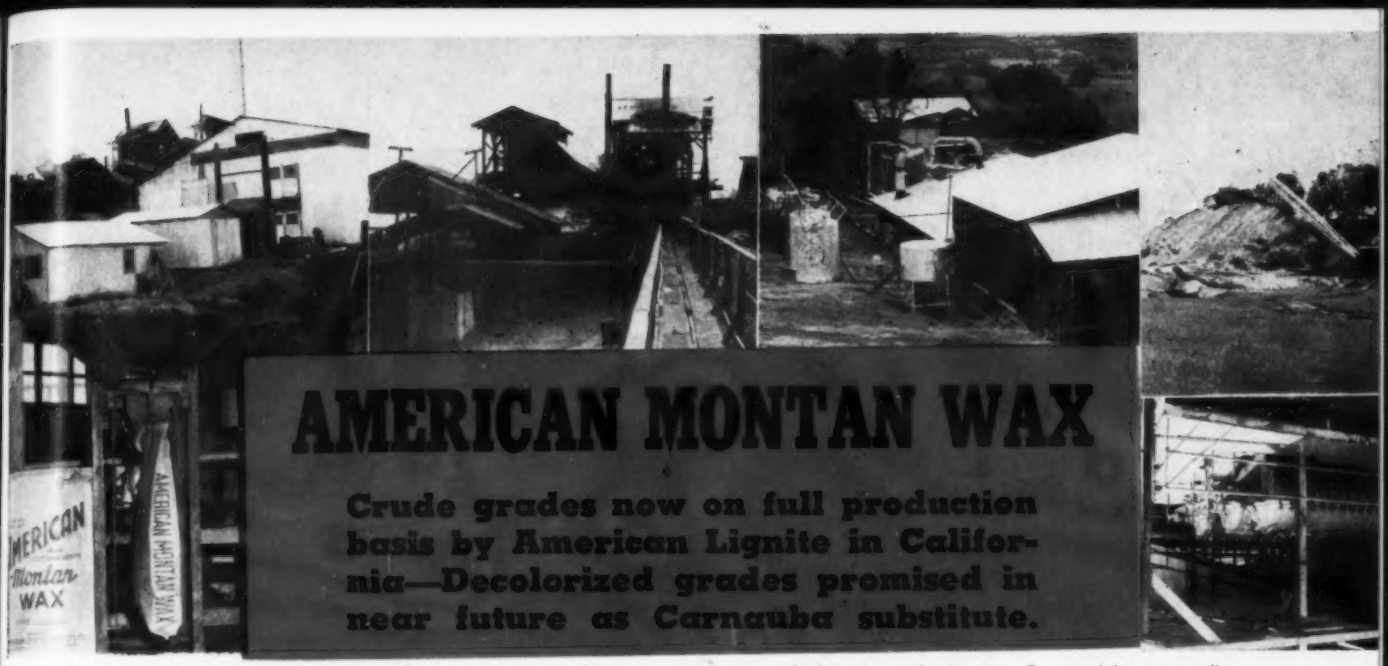
	Percent
Furfural	40.0
2-Butanone	55.0
Ethylene glycol	5.0

Italian workers make use of furaldehyde in their formulations. Thus, DeTullio(34) states that a varnish remover may be made from:

	Parts
Paraffin	22
Furaldehyde	15
Trichlorethylene	35
Nitrobenzene	13
Solvent	10
Mineral oil	5

Removers with a wider range of applications consist of mixtures of water, sodium hydroxide, sodium carbonate, lime, butanone, butyl alcohol, furaldehyde, nitrobenzene, aniline, mineral oil and thickening agents. These compositions are used to strip

(Turn to Page 161)



AMERICAN MONTAN WAX

Crude grades now on full production basis by American Lignite in California—Decolorized grades promised in near future as Carnauba substitute.

Above, reading clockwise: Bagging machine—automatic weighing device and hopper feed; complete boiler room, which has two large boilers, one always serving as a standby, building at extreme left houses employee shower and locker rooms; lignite milling plant where the following operations are performed: materials are crushed to one inch size, two Raymond hammer mills grind to minus 200 mesh and drying and classifying are done; part of the extraction plant showing large solvent tanks with distillation towers and piping on the far end; open pit mines; filter arrangements at wax extraction plant.

LARGE scale production in the United States of high quality montan waxes equal or superior to the German montans is now at hand, according to Frank J. De Angelis of the American Lignite Products Co. of California. In addition he states that new types of decolorized montans, now in the pilot plant stage, will shortly be available on a production basis. Those latter decolorized waxes practically duplicate the characteristics of carnauba wax and are suitable for use in a wide range of wax emulsions as a substitute for the high-priced vegetable wax, Mr. De Angelis added.

Located near the small town of Ione, Calif., American Lignite is conducting the only montan wax operation of its kind in the Western Hemisphere. Operations were started in 1946 and the first actual production was about the middle of 1948. Since that time, many improvements have been made in plant and process and output has steadily increased to a point where it now can be a serious threat of foreign production of montan and Gersthofen waxes, produced in the western zone of Germany from crude montan originating in the Soviet controlled eastern portion of Germany.

In view of the source of raw material which is controlled by American Lignite and stated to be inexhaustible when the rate of consumption of montan waxes in this country is considered, Mr. De Angelis believes the California operation is certain in time to make America independent of foreign wax sources. He states that the operations of American Lignite must be considered still in their infancy and that actually, new wax developments will shortly be brought before the deeply interested wax consuming industries of America.

Although there are many sources of lignite in the United States, the California deposits yield the highest percentage of montan wax as well as the best quality. In fact, according to Mr. De Angelis, California lignites can yield a better quality montan than those which can be extracted from German lignites. Montan is a hard wax and very dark in color. It is extracted with petroleum solvents from pulverized and dried lignite. One ton of lignite, calculated on a basis of 25 per cent moisture content, will yield approximately 280 pounds of finished crude montan wax. Major production costs comprise labor and it is this cost which to a great extent determines the marketable value of the wax. U. S. Bureau of Mines Bulletin No. 482 gives a great deal of pertinent information on American lignite.

The American Lignite plant is located 6½ miles south of Ione in Amador County, Calif. At the plant site are general offices and laboratories. The entire operation is based on laboratory controlled techniques under the direction of Perry G. Vlacos who has had a background of twenty-five years in wax production and refining.

Thus far, production has been confined to crude grades which are now available in large quantities as a regular domestic supply. These grades are manufactured from domestic raw materials by the use of non-critical materials exclusively, a combination which makes for a domestic source of wax free from wartime uncertainties and wide price fluctuations. The operation in California has resulted from long and costly research work, according to Mr. De Angelis,—a great deal of the research being conducted in conjunction with state geological departments, — and in pilot plant experimentation.

Similar to the foreign waxes, American montan is a hard wax easily saponified and compatible with most other waxes, oils, pigments and dyes. Its high melting point, good oil retention, good penetration and flow make it well suited for the manufacture of carbon paper, wax coatings of any type, and other wax pastes and some emulsions. The American wax is superior to the best grades of imported montans. It carries a higher acid number and saponification value and is higher in true wax esters. Where the technology of wax use is fully under-

(*Turn to Page 157*)

From Tires to

By Phil Lance

QUALITY, service and proper pricing have constituted the backbone of the growth and development of Diamond Chemical and Supply Co., Wilmington, Del. From a small side-line business to one that is today the largest in this diamond state is the growth record of this aggressive sanitary supply house. Diamond's success, according to its president, stems from the handling of quality merchandise, giving good and prompt service at all times and selling at prices that satisfy every budget.

"These are the three factors that customers look for in buying their sanitary and janitorial supplies," says Joseph Silver, president of the firm. "Each customer has certain brand preferences for items he is seeking to buy. If a large number of nationally known products are handled by the jobber, it is not difficult to accommodate the consumer. The customer doesn't have to be given any excuses for not having particular brands in stock.

"Then, again, customers demand, and are entitled to, good service. They should have prompt deliveries, proper adjustment of bills and any help or advice required by them. Customers should never be put off regardless of whether or not a sale is involved. We have always felt that even if we spend time and money demonstrating, advising or otherwise servicing a buyer of

From top to bottom:

Joseph Silver, president of Diamond Chemical Supply Co., Wilmington, Del., at his desk.

Orders are assembled in shipping department then taken down to freight elevator with truck for shipment.

A view of the store shows merchandise neatly shelved and displayed. Large window permits store checking from office.

George Fletcher, sales manager, explains his products to a customer at the store.

Sanitary Supplies

Diamond Chemical & Supply Co., Wilmington, becomes Delaware's largest sanitary supply jobber with quality + service + proper prices.

sanitary supplies that may not be buying from us, that it is worthwhile. Eventually they will turn to us for supplies. And our sales records show this to be a fact.

"Pricing is another problem that has to be coped with. Every buyer of supplies has a different budget. For that reason a supply house must stock lines of supplies that cover the widest possible range of prices. In this way we meet all requests as well as competitive pricing. The combination of quality merchandise, good service and proper pricing can turn any prospect into an actual customer."

Diamond's Early History

BACK in 1924, Joseph Silver was in the auto tire business in Wilmington. With competition severe and business on the decline, he looked around for other items to handle. He took in a small line of janitorial supplies to augment his tire business and these sold out surprisingly fast. From that point on, he concentrated on selling sanitary supplies, eventually clearing out his stocks of tires, and by 1928 becoming a sanitary supply jobber exclusively.

His newly acquired lines were selling so well that he hired an outside salesman while he continued selling on the "inside." It wasn't long before he realized that "outside" contacts were very important for the growth of his business, so he joined his outside salesman and employed "inside" personnel.

"Through the next few years which was in the early 30s," Mr. Silver recalls, "we really started getting our feet on the ground rather than merely scratching the surface. We contacted almost every individual and business that we felt were prospects for our supplies. We also experimented with different lines of merchandise until we found those most frequently ordered by our customers. It was on these lines that we built our reputation for service, quality and pricing. But by sticking to our job, we began to build up a considerable following."

Acquire Trade Marks

IN an effort to help identify their business and their policies, the firm acquired a trade-mark and slogan that has remained with them since. The company uses a diamond shaped insignia to identify it as the Diamond Chemical and Supply Co. In addition, the firm employs one of its two slogans wherever its name appears. One slogan reads: "If It's Clean, It's Healthy;" the other is: "Where Quality Excels." Either slogan is used where it is most applicable.

Moves to Larger Quarters

EARLY in 1939 Diamond had progressed to the point where the original building was too small for its activities. The firm then moved to a building 22 feet wide and 117 feet long, at 207 Market Street. The main entrance was on Market Street, the principal shopping artery in Wilmington. The rear of the building is on Shipley Street. All merchandise was moved in and out of the building from the Shipley St. entranceway. In a short time, when added space was needed, the basement was put into shape and used as a storage area.

In 1948, with the need for more space becoming pressing, Diamond Chemical and Supply Company moved to its present location, which is known as the Diamond Building.

Present home of Diamond Chemical and Supply Co.

This building contains over 17,000 square feet of floor space on five floors. An elevator, 10 x 12 feet, facilitates the stocking of supplies in the building and the shipping of orders. But one of the features of the business of which Mr. Silver is most proud of is the Diamond showroom.

"I believe that we have one of the largest showroom areas in the East," he pointed out, "and one of the most beautiful and completely stocked ones to be seen. In my opinion, a showroom is as much a necessity for a sanitary supply house as are the salesmen that represent it. There are a great number of reasons why a business such as ours needs a showroom."

Showroom Promotes Business

MR. SILVER feels that a good showroom can give customers a better impression of the firm with which they deal. At some time or another, a customer visits the firm's headquarters. When he does, the physical part of the business must make as much of an impression as the firm's salesmen. In fact, Mr. Silver tries to have all his salesmen bring in their customers at least once a year if not oftener. Once customers see the large display layout, they are impressed and feel they are doing business with a substantial organization. Such reactions help to create added good-will and continued business dealings.

The entire display area has been departmentalized to make merchandise selections easy. Such departments consist of detergents and cleansers, paper goods, galvanized ware, waxes and polishes, cleaners and other lines of supplies. All merchandise handled by Diamond is on display, and is price marked, coded and further identified.

Many of Diamond's customers prefer to make periodic visits to the display area in order to make purchases. This is particularly true with newcomers to the area, who visit the firm's headquarters to place their initial order. Such visits make buying easier and, at the same time, permit buyers to take merchandise with them.

"We have an intercommunication phone system that connects all parts of our building," explains Mr. Silver. "As customers give us their order, we can call to any floor and part of the building to get the desired merchandise and have it downstairs in a matter of minutes. This system of communication is also useful for general purposes."

The entire showroom is illuminated with fluorescent tube lighting. Acoustic tile on the ceiling muffles any sounds coming from the upper floors where merchandise is stored and shipped.

In 1951, Diamond acquired N. B. Danforth Company, a firm that was established in 1842 for handling chemicals and supplies. This addition provided the firm with an added line of sanitary chemicals, extra customers and business equipment.

To illustrate the importance of a good showroom, Mr. Silver recalled the recent instance of a high school principal who had come to Diamond in search of a special brush for laboratory use.

After checking through the brush lines stocked by the firm, he found the one he wanted. But in doing so, he also came across many chemicals, allied items and supplies that he could use. Within half an hour he placed an order for $485 worth of merchandise. If merchandise wasn't displayed in the store as it is, this sale would probably never have been made. Now a salesman is calling on this customer as a regular account.

Sales Promotions

DIAMOND has five salesmen who make all the outside contacts. They are headed by sales manager George Fletcher, who was formerly connected with a large wax and polish manufacturing concern. He trains his personnel, checks their sales activities, holds weekly sales meetings and helps salesmen promote business. Salesmen are on a commission-against-drawing-account basis.

The salesmen cover a 50 mile radius around Wilmington. The firm has divided up its sales activities for salesmen into two definite patterns to assure all salesmen getting proper credit for their accounts and to avoid overlapping in their efforts.

All salesmen have definite accounts within a seven mile radius of the firm. They can not open a new account in this area without the permission of the sales manager. This is to avoid more than one salesman calling on a prospect. They service their regular customers and if they have a new prospect inquire if anyone has made contact previously. If not, they are given the green light. As the seven mile radius covers Wilmington mainly, there are no territorial allotments made to salesmen because the firm desires complete coverage of the area.

Outside of the seven mile radius, each salesman has an alloted area. He can go after any and all business in that territory and gets credit on any orders that come in from that district whether he has made contact or not. In this way, the salesmen have protected accounts in the city and protected areas in their sales territory.

Salesmen make up their own routine for customer contact, as each area differs. They contact industrial plants, businesses, service stations, hospitals, schools, other institutions and other prospects. Some salesmen make it a point to visit institutions one day, service stations another, retail businesses another day and so forth. Other salesmen make contacts based on their traveling plan, hitting every customer and prospect while making a trip. It's up to each salesman to work out his own plan for making sales calls.

From time to time, the firm ties in with the incentive plans of its manufacturers to stimulate the sale of certain products and lines. Currently, the firm has tied in with a manufacturer who is awarding salesmen merchandise prizes based on their individual sales efforts. Salesmen get a certain number of points per case of merchandise sold a new customer and a lesser number of points per case of merchandise sold to a regular customer.

The manufacturer has supplied the firm with a merchandise catalog that lists the merchandise prizes available and the number of points needed to obtain these items, and the salesmen have made definite strides in promoting this business.

"I am a great believer in promotions and incentive plans," says Mr.

Diamond's president, Joseph Silver shows line of soap dispenser to buyer.

Silver, "because a similar plan was the basis for our getting into paper sales. Some years ago, a paper cup manufacturer prevailed upon us to handle his line of paper cups. As we had never handled paper products, we were a little reluctant to take on this line, but he induced us to try it out with a merchandise contest, awarding merchandise based on points per case of cups sold.

"Imagine our pleasant surprise when two of our salesmen sold over six million cups of one size in a few weeks period and obtained such merchandise prizes as rugs, radios, wall cabinets, chairs, suits of clothing and additional items. Besides that, our paper cup business kept on growing because it is an expendable item, needing frequent replacement and showing a saticfactory profit margin."

Stimulated by this success, Diamond added other paper products to its sales line which have since become staples. Its paper stock today is one of the largest in the Diamond state. If a promotion had not provided the push needed to sell paper cups at the start, this firm would have missed up on a splendid sales line and profit maker.

Merchandise Stocks

THE shipping department is in charge of maintaining correct levels of merchandise so that the firm never runs short of any items. There is a minimum and maximum level for every product stocked by the firm and the shipper tries to keep his stocks within this range.

All the merchandise handled by the firm is classified and stocked within the Diamond Building. Then the individual product in each classification is broken down so that it is simple to check each and every line of merchandise stocked. A sheet has been made up for each classification which is broken down to the actual brand and product with its minimum and maximum requirements. These sheets are posted in the different parts of the building where the stocks are stored.

It is the duty of all stockmen and the shipper to check their merchandise against the stock levels and when they find that withdrawals are reducing the stocks, they immediately note it on a requisition. This goes to the office where it is checked again and a purchase order issued. This is a daily procedure. But, in addition, every Saturday morning is reserved for stock checking to make doubly certain that inventory is properly balanced.

All copies of customer orders go to the shipper who assigns them to stockmen for filling. From the different parts of the building, all the merchandise is assembled at the shipping desk where it is checked and packed. Portable trucks with pallets simplify the order filling job and these are loaded and taken by elevator to the ground floor for truck loading.

Regular Deliveries

THE firm operates two delivery trucks which make two deliveries weekly within the seven mile radius. The balance of the week is spend on the road making deliveries within the 50 mile radius set by the firm. Special deliveries are handled immediately, as part of the service of this firm.

In addition to its large stock of nationally branded merchandise, the firm has its own Diamond Brand products. Salesmen do not promote one brand over the other, letting the customer make his own selection.

"One of the major problems in the sanitary supply business is stocking the brands demanded by customers," explains Mr. Silver. "Where one customer wants one brand of wax another customer desires a different brand. For this reason, we try to carry as many nationally advertised brands as possible, so that we can always satisfy our customers."

Many times, a customer will ask a salesman if he has any ideas or suggestions to offer on a certain product that will give him complete satisfaction outside of the brands mentioned. When this happens the salesman comes back with the Diamond Brands. A private label has been found to be the answer to any customer seeking something different than that on the market.

Probably one of the major factors contributing to the success of the Diamond Chemical and Supply Company is its policy of guaranteeing any merchandise that it sells. If any customer isn't pleased with any purchase made from the company, regardless of the brand, they get full credit for it.

"When customers know that they can get a complete refund on any products purchased from us and that we will stand behind everything that we handle," states Mr. Silver, "they buy more freely. We will never 'stick' a customer or otherwise give them reasons or excuses for not giving them a refund or credit if not pleased with any purchase made from us.

"We tell every one of our salesmen, that if a customer says that they didn't get satisfactory results from a broom that they purchased, a gallon of wax or polish, or show any dissatisfaction with any product at all, to give them a replacement or a refund immediately. When customers know that we have such a lenient policy, they gain more confidence in us."

Mr. Silver estimates that replacement merchandise runs less than $100 a year. This is a very nominal price to pay for the considerable amount of goodwill that it earns. Mr. Silver also states that he could never get as much goodwill and advertising for $100 as he does when he backs up the merchandise that his firm handles with such a guarantee.

"All a customer has to do is hand a broom to a salesman and say

(*Turn to Page 157*)

Petrolite

TOUGHER, MORE FLEXIBLE AND HIGHER MELTING POINT THAN CARNAUBA

ESTAWAX

ESTAWAX is a synthetic wax produced by Petrolite. It is tougher, more flexible and has a higher melting point than Carnauba, yet is comparable in hardness and has excellent gel-forming characteristics. Its uniformity can be controlled within very close limits. The unique properties of ESTAWAX make it especially adaptable in the manufacture of solvent paste waxes and liquid polishing waxes.

Solvent paste and solvent liquid polishes made from ESTAWAX have a brilliant gloss, tough wear resistance and are non-tacky. The polish film is hard, flexible and water-resistant.

Get samples and complete information on this unique product today. Write or call

PETROLITE CORPORATION

WAX DIVISION

30 BROAD STREET, NEW YORK 4, N. Y.
P. O. BOX 390, KILGORE, TEXAS

Petrolite Waxes are stocked at Jersey City, Chicago, Kilgore and Los Angeles

PWS3-3-R

There's a better way

...to mask unpleasant odor

● Whatever your product, whatever your odor problem, and regardless of budget limitations, MM&R has the technical know-how and high-quality stocks to knock out even the heaviest basic odors . . . to impart a pleasant sales-stimulating scent.

Put the sell in smell. Get full particulars on MM&R Neutralizers, Deodor-scents, Perfume Oils and Essential Oils — all famous the world over for strength and purity.

Remember — the switch to MM&R involves no switch in your present formula or budget. Write today.

M&R MAGNUS

Magnus, Mabee & Reynard, inc.

Since 1895 **ONE OF THE WORLD'S GREATEST SUPPLIERS OF ESSENTIAL OILS**

16 Desbrosses Street, New York 13, N. Y. · 221 North La Salle Street, Chicago 1, Illinois

THE *Aerosol Valve* FOR YOUR PRODUCT *by Precision*

● The picture tells a story . . . a story of overwhelming popularity, tremendous growth and continued reliance on a quality product . . . PRECISION VALVE.

The many millions of valves in daily use, representing over one hundred completely satisfied customers in the United States and Canada, is your assurance that PRECISION has the answer to your aerosol program regardless of product or container.

We invite your inquiry to enable our staff of aerosol valve technicians to work cooperatively in satisfying your valve requirements.

PRECISION

Precision Valve Corporation

700 NEPPERHAN AVENUE • YONKERS 3, NEW YORK

A Method for Determining Water in

Insecticidal Aerosols

By R. A. Fulton and R. P. Gelardo
Bureau of Entomology and Plant Quarantine
Agricultural Research Administration, U. S. Department of Agriculture

THE presence of moisture in insecticidal aerosols is related directly to their storage life and performance. The nature of the petroleum solvents and the propellent is such that moisture over 60-70 ppm exists as free water at the liquid level of the aerosol solution and in the vapor above the liquid. For this reason corrosion always takes place either at the liquid level or in the vapor above the liquid. It has been found that if moisture in the finished aerosol is maintained below 80 ppm the problem of corrosion by water is practically eliminated.

The main source of water in the finished aerosol cans is water vapor in the air, which is precipitated when the solutions and cans are chilled during the filling operation.

A procedure employing titration with Karl Fischer reagent for the determination of water in aerosols has been described by Reed and Downing (1). This method is satisfactory for a large number of products when the water is actually in the solution, but for most of the aerosols purchased for the Armed Forces, which contain allethrin, the method was found to give low results. The main difficulty was found in holding the free moisture in the aerosol solution during the titration.

A method has been developed which comprises extracting all the water from the can with ethylene glycol and then titrating the removed water in the glycol layer with Karl Fischer reagent to a 10-millivolt deflection on an electronic meter. The time required to complete an analysis is approximately 30 minutes, depending on the number of analyses to be made. The accuracy of the procedure has been determined by adding known amounts of water to aerosol containers in quantities which gave variations in the water content of from 15 to 300 ppm. The procedure as described will remove approximately 95 per cent in the range from 15-150 ppm. Above this range (150-300 ppm) one extraction will only remove approximately 90 per cent of the water, and if more accurate results are desired it will be necessary to make two extractions with ethylene glycol.

Apparatus

THE apparatus for the determination of water in aerosol containers is listed below.

1. Pressure-bottle frame and cap (Fig. 1) as described by Fulton (2) except for an additional valve and elimination of the filter in the pressure cap. The fittings shown in Figs. 1 and 2 are of ¼-inch SAE flared brass.

2. The combination holder and puncturing device (thief), is shown in Fig. 2. The brass clamping pieces were made to fit large cans, but by cutting semicircular pieces of brass or plastic for each type of can, the holder may be used for all can sizes. The puncturing device is commonly used in the refrigerator trade and is available from Eston Chemicals, Inc., Los Angeles, and the Virginia Smelting Co., West Norfolk, Va.

3. Magnetic stirrer with Teflon-covered stirring bar.

4. Platinum and tungsten electrode pair. Wire of any gage between 18 and 24 may be used.

5. pH meter. Photovolt Co., New York, Model 100 or equivalent.

6. Automatic burette for Karl Fischer reagent. Scientific Glass Apparatus Co., Bloomfield, N. J., No. J740-B or equivalent.

7. A shield, approximately 16 x 24 inches, made from one inch safety glass and mounted in a heavy wooden frame, for use in charging the bottle with dichlorodifluoromethane and adding the ethylene glycol to the can.

A schematic drawing illustrating the arrangement of the electrodes, burette, and stirring mechanism is shown in Fig. 3.

Reagents

1. Absolute methanol, must be shipped in a glass bottle.

2. Pyridine, redistilled, b.p. 114.5°-115.5° C.

3. Iodine, resublimed.

4. Sulfur dioxide, refrigeration grade or better.

5. Ethylene glycol, commercial grade. Dry by heating to boiling point (198° C.) and protecting on cooling with a drying tube.

6. Sodium tartrate dihydrate, ACS quality, water content 15.66 ± 0.05%.

Because of difficulties encountered with commercial preparations, it is recommended that this reagent be prepared and standardized in the following manner:

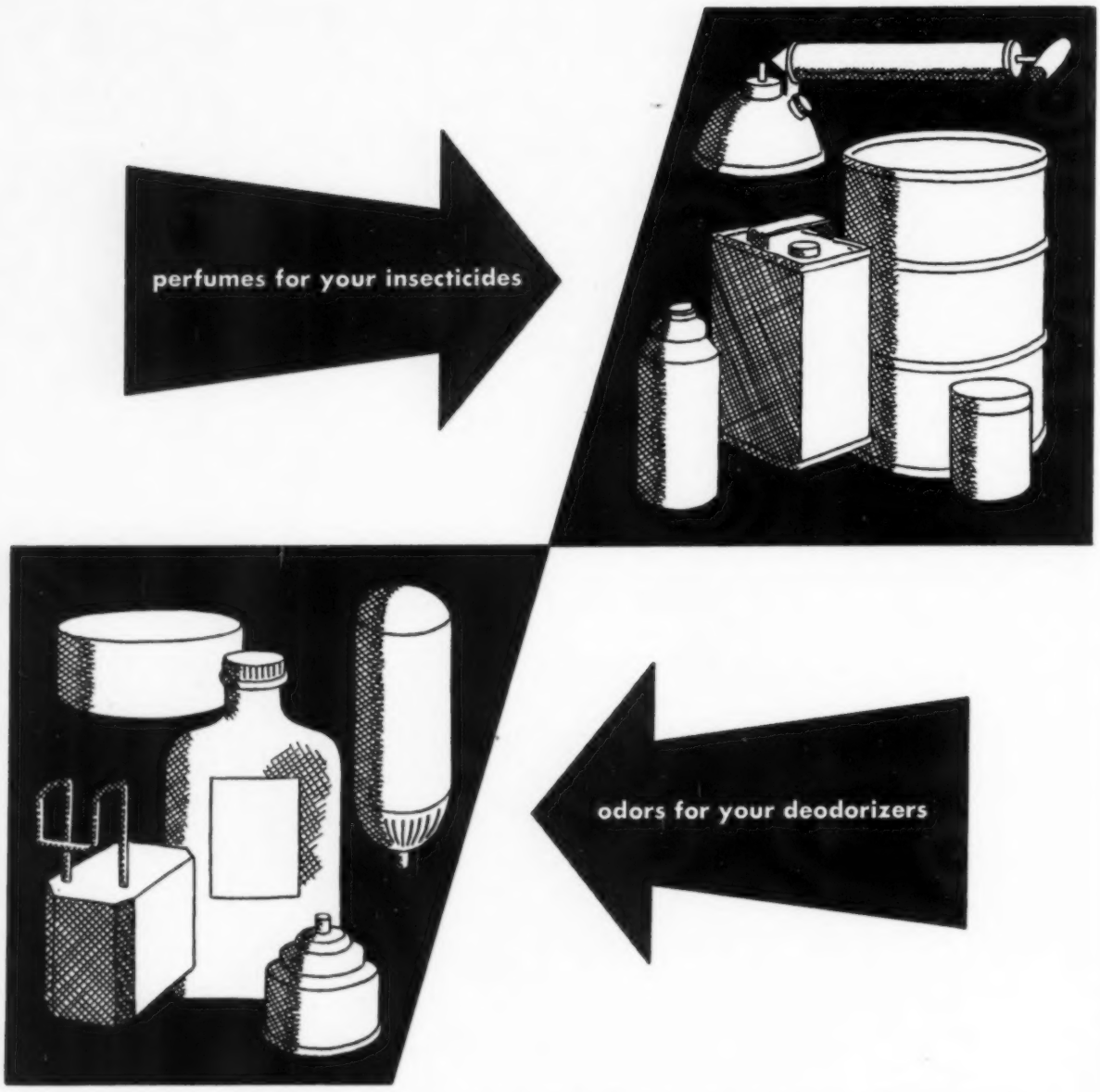
Preparation of Karl Fischer Reagent:

1. Weigh to tenth of a gram 84.7 grams of iodine.

2. Add the iodine to 269 ml. of pyridine in a glass-stoppered bottle and shake until solution is complete.

3. To the iodine-pyridine solution add 667 ml. of absolute methanol, shake, and let stand for 24 to 48 hours.

4. Add 64 grams of gaseous sulfur dioxide by bubbling it through



ORBIS HAS THEM

...ORBIS SAVES

Tell ORBIS what you need today

NEW YORK
CHICAGO
BOSTON
MEMPHIS

ORBIS
PRODUCTS CORPORATION
215 PEARL STREET
NEW YORK

the solution. Keep the solution in a bath of cold water while adding the sulfur dioxide, and control the rate of addition so that the total time is not less than 15 to 30 minutes.

5. After the solution has cooled, transfer it to the reservoir of an automatic burette; shake before using.

6. Because of deterioration the Karl Fischer reagent must be standardized before each day's use.

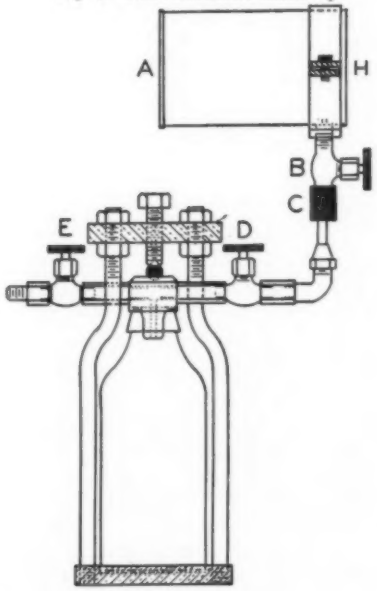
Standardization of Karl Fischer Reagent:

1. Accurately weigh in a weighing tube about 250 mg. of reagent-grade sodium tartrate dihydrate (3) that has a water content of 15.66 ± 0.05%. To determine the water content heat five grams to 150° C. for three hours, or until it has reached a constant weight.

2. Fill the burette with Karl Fischer reagent, and then allow the solution to run back into the reservoir. Repeat this alternate filling and emptying for a total of four times. Finally fill the burette to the zero mark again for the titration to follow.

3. Place 100 ml. of absolute methanol in a glass bottle. Insert the stirring bar and the platinum and tungsten electrodes into the bottle; adjust the zero point of the pH meter and connect it to the electrodes; turn on the magnetic stirrer to give the solution a gentle swirling action, and then titrate with Karl Fischer reagent to the end point. The end point is that point at which an increment of two drops of reagent produces a 10-millivolt scale deflection from the original zero point. The end point is best approached by adding the reagent rapidly until the needle deflection is about 100 millivolts from the original zero point, then decreasing the flow to an increment of 4 drops of reagent and a 20-millivolt deflection, and finally decreasing to an increment of 2 drops of reagent until the 10-millivolt deflection is attained.

Fig. 1. Water-extraction assembly.



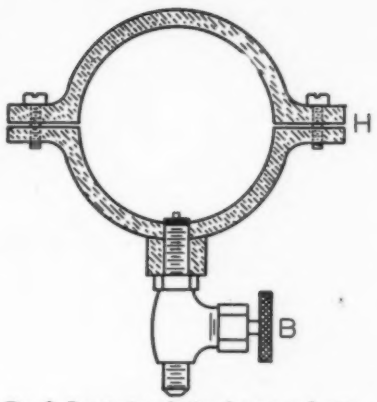


Fig. 2. Puncturing device for aerosol cans.

4. When the end point is reached, record the burette reading, lift the electrodes, quickly add the sodium tartrate that is in the weighing tube, and titrate again to the same end point. The weight of the sodium tartrate is then determined by reweighing the empty tube.

5. *Calculations*:

$$\frac{\textit{mg. of sodium tartrate} \times 0.1566}{\textit{ml. of K. F. reagent}} = \text{mg. of water per ml. of K. F. reagent.}$$

Analysis Procedure

1. Weigh the can to be sampled. Place the can in a dry-ice or low-temperature cabinet for at least one hour.

2. Rinse the burette with standardized Karl Fischer reagent as described under the standardization of Karl Fischer reagent, step 2.

3. Add approximately 100 grams of dry ethylene glycol to a dry citrate of magnesia bottle.

4. Assemble the tirtration apparatus as described under the standardization of the Karl Fischer reagent, step 3.

5. Titrate any water that might be present in the ethylene glycol with Karl Fischer reagent to the 10-millivolt end point.

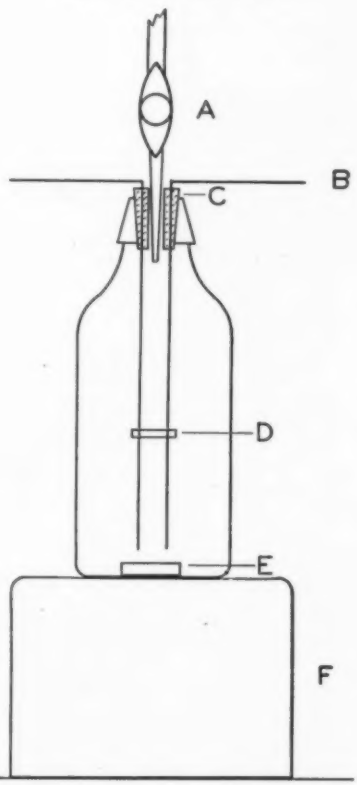
6. When the end point is reached, remove the electrodes and quickly assemble the apparatus as shown in Fig. 1, keeping all the valves in the system closed. Tighten the machine screw on the top of the pressure-bottle frame with a short wrench until the gasket of the assembly makes a tight fit against the mouth of the bottle, but do not apply excessive pressure on the bottle.

7. Attach the apparatus to a vacuum source; open valve *E* and evacuate the bottle immediately to approximately 25 inches of mercury or to the point at which small bubbles begin to form in the solution. Close valve *E* immediately and disconnect the assembly from the vacuum line.

8. Place the bottle assembly in a heavy canvas bag and connect valve

(*Turn to Page* 159)

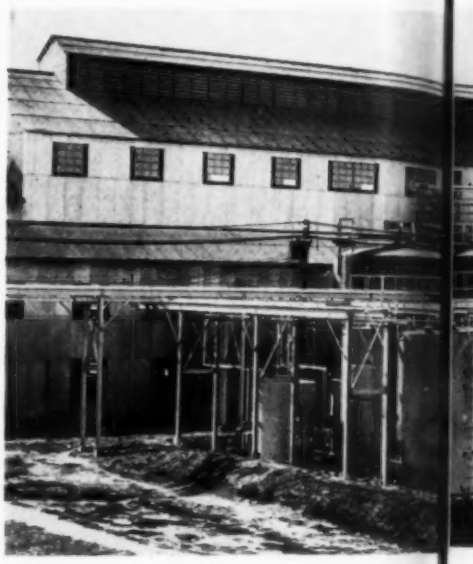
Fig. 3. Titration assembly.



New U.S.I.

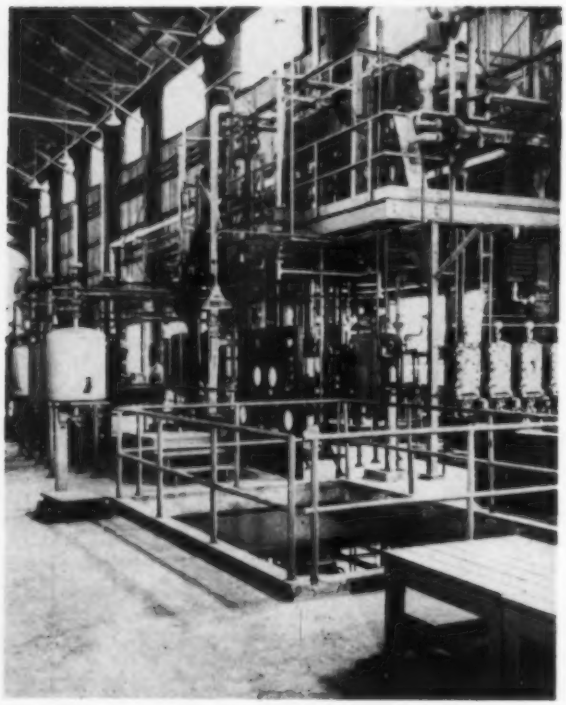
AVAILABILITY of allethrin in sufficient quantities to meet consumer needs in 1953 has been assured with the recent announcement of full-scale production of the synthetic insecticide at the new plant of U. S. Industrial Chemicals Co. Division of National Distillers Products Corporation in the Fairfield section of Baltimore, Md.

Before allethrin, allethrolone must be produced in the progressive production of allethrin at the Baltimore plant of the U. S. Industrial Chemicals Co. In this photo, shift foreman Charles Linstid is shown weighing allyl chloride for initial reaction in the preparation of allethrolone.



General view of exterior of USI's al-

It takes a maze of pipes, vats and vessels to produce the new synthetic insecticide, allethrin. This interior photo of the Baltimore allethrin plant of U. S. Industrial Chemicals Co. shows equipment for the recovery of solvent from the initial reaction in the preparation of allethrolone, one process leading to allethrin.



Allethrin approximates some of the properties of pyrethrins, and one of the lowest in toxicity to humans and animals. Its greatest immediate usefulness, the developers believe, will be in household aerosols and sprays designed primarily for control of flies, although investigation continues in all related fields of the insecticide industry.

The needs of the Korean battlefields hastened allethrin development as a commercial product, when the military forces indicated to chemists their demand for a rapid, instantaneous-type insecticide to protect

Allethrin Plant

United Nations' forces from such pests as the malaria-conveying mosquito. The new material, on which USI has export rights control, becomes a companion insecticide to piperonyl butoxide, piperonyl cyclonene and other chemicals now produced by the company.

lethrin plant, with tank farm in foreground.

Piperonyl butoxide and pyrethrins have gained broad usage in formulations known as "Pyrenone,"* determined to be the lowest of all known insecticides in toxicity to humans and animals. Allethrin, similar in chemical structure to natural pyrethrins, obtained from chrysanthemum-like pyrethrus flowers, of which USI is the world's largest handler, has an action on many insect species quite different from that of the natural product.

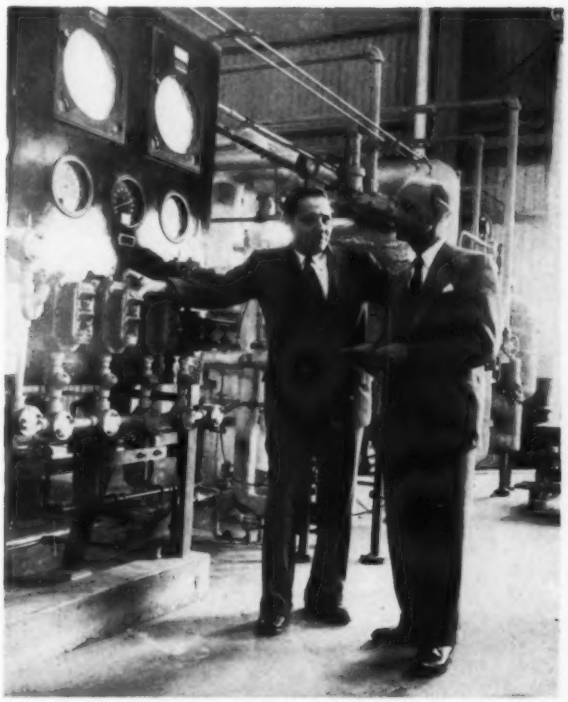
Mild smelling and clear colored, the new, highly stable insecticide was first synthesized by Milton S. Schechter, Dr. Frederick B. LaForge and

* U. S. Industrial Chemicals, Inc.

(*Turn to Page* 153)

After going through 18 processes at the USI plant in Baltimore, the finished allethrin reaches this still. Operator Charles Kolcdziejski is shown adjusting the flow of materials into the still.

W. S. Blondheim, manager of Baltimore plants, and H. A. Jones, manager of Baltimore research laboratory, discuss allethrin production schedule at controls of automatic dehydration reactor.



ATTENTION

Manufacturers Non-Rubbing Floor Polishes!

GRP

Refined (Dewaxed) Bleached White Shellac is

Synonymous with Quality and Uniformity!

Its Low Acid Number Requires a Minimum of Alkali.

Dissolves Rapidly and Completely.

Insures Maximum:

Economy	Water Resistance
Durability	Stability
Levelling	Ease of Application
Hardness	Mar Resistance
Gloss	Anti-Slip

Preferred by Name Brand Manufacturers for Best Results!

Standardize with GRP Today!!

GILLESPIE-ROGERS-PYATT CO., INC.

Factory: 39 Essex St., Jersey City 2, N. J. **Office: 75 West St., New York 6, N. Y.**

Warehouse Stocks in Principal Cities in United States and Canada.

GRP Agents

Atlanta, Ga.
Deeks & Sprinkel Co.

Boston, Mass.
Phillip A. Houghton, Inc.

Chicago, Ill.
E. J. Lewis Co.

Cincinnati, O.
Deeks & Sprinkel Co.

Cleveland, O.
A. C. Mueller Co.

Detroit, Mich.
Matteson-VanWey, Inc.

Los Angeles, Cal.
E. B. Taylor Co.

Louisville, Ky.
B. H. Boyet & Co.

Montreal, Que.
Drew, Brown Ltd.

New Orleans, La.
Griffith-Mehaffey Co., Inc.

Pittsburgh, Pa.
John D. Butts

Portland, Ore.
VanWaters & Rogers Co.

San Francisco, Cal.
E. S. Browning Co.

Seattle, Wash.
VanWaters & Rogers Co.

Toronto, Ont.
Drew, Brown Ltd.

Vancouver, B. C.
Overseas Commodities Ltd.

SPRA-TAINER Does It Again!

DEAD END ...for Insects

Bid a fast "By-by" to bugs . . . both the flying and crawling kinds which are not only a nuisance but a menace to health. Stop 'em *dead* with a lethal mist of BLACK FLAG, famous insecticide of Boyle Midway Inc., now pressure-packed in SPRA-TAINER.

Crown was first to invent the lightweight spray can—named it SPRA-TAINER—and now more SPRA-TAINERS are used than any other propulsion can. Nothing *protects* your product like SPRA-TAINER's patented "No Side Seam—No Top Seam" construction. Nothing *sells* your product like SPRA-TAINER's exclusive "Modern Design." And only SPRA-TAINER is supplied in three companion sizes: 12 oz. Large, 6 oz. Tall, 6 oz. Squat.

Look to Crown for continued leadership through new ideas in the design and manufacture of fine cans for almost every use. YOU CAN'T BUY BETTER CANS.

One of America's Largest Can Manufacturers

OTHER BOYLE MIDWAY INC. PRODUCTS *also in* SPRA-TAINER

6 oz. Black Flag
6 oz. Wizard Aerosol Deodorizer
6 oz. Aero Snow Flakes

CROWN CAN

Division of

CROWN CORK & SEAL COMPANY

PHILADELPHIA, CHICAGO, ORLANDO, NEW YORK, BALTIMORE, ST. LOUIS, BOSTON

IN INSECTICIDES...

your product is accepted

RIGHT HERE!

where GIVAUDAN odors build repeat sales

If an insecticide effectively "stops" insects . . . but its odor "stops" consumers . . . its sales prospects are "stopped" right after the initial purchase.

The intricate problems of odor selection for insecticides can be successfully solved with the help of GIVAUDAN. Here, supplementing the progress of its modern Aerosol Research Laboratory, a team of odor experts is equipped to master the complexities of such problems as corrosion-resistance, solubility and fixation . . . as they may relate to your formulas.

This experience is available to you in all matters concerning odor.

Givaudan-Delawanna Inc.

Leaders in Creative Perfumery

330 West 42nd Street, New York 36, N. Y.

Branches: Philadelphia • Boston • Cincinnati • Detroit
Chicago • Seattle • Los Angeles • Toronto

Soap Meeting

(*From Page* 45)

production should be up; coconut oil output off by about 10 per cent, Mr. Gordon stated.

Petroleum alkylate will be in plentiful supply in 1953, according to T. B. Hughes of Oronite Chemical Co., even with the increases made in synthetic detergent output in the past few years.

Similarly, alkalies are readily available, and new production facilities are in various stages of construction, Lester B. Gordon of Solvay Products Division of Allied Chemical & Dye Corp., New York, reported. A soda ash capacity of 6,000,000 tons or more annually was seen for 1953 by Mr. Gordon. Caustic soda output in the U. S. in 1951 was four million tons, of which the soap industry used five per cent. In 1953 the industry can produce in excess of 200,000 tons (basis 45 per cent HOK), as against 170,000 last year, he said.

Detergent phosphates, particularly sodium tripolyphosphate, have increased in tonnage markedly since 1947, and there need be no concern regarding the future because the raw materials for this production are not limited, Edward Block of Blockson Chemical Co., reported.

"There is no sulfuric acid supply problem today, except perhaps in two isolated areas, and this condition will soon be corrected by reason of additional manufacturing facilities now being built" was the way Mark Biddison of General Chemical Division, Allied Chemical & Dye Corp., summarized the position of sulfuric acid.

Packaging materials are in good supply, according to Lloyd Stouffer of *Modern Packaging*.

Citing the unpredictables that make prognostications regarding the course of future availability and prices of essential oils extremely hazardous, A. L. Van Ameringen of Van Ameringen-Haebler Co., New York, did assure soap and detergent makers regarding aromatic chemicals, particularly those produced by synthesis.

Detergents were discussed in the two papers, following the raw materials outlook panel discussion. Dr. Donald Price, technical director of Oakite Products, Inc., New York, discussed "Compounded Detergents," while Dr. Reginald Wakeman, technical director of Quaker Chemical Products Corp., Conshohocken, Pa., spoke on "New Markets for Detergents." Dr. Price commented on the fact that soap was one of the few cleaning materials that is used without mixing other chemicals with it. He also pointed out that soap is "hard to beat and will always hold a foremost place in the detergent field." He concluded with a review of industrial cleaning and cleansers for these operations.

The final session of the meeting, that of the Industrial Soap Division, was held the afternoon of Jan. 29, following the election of officers and a meeting of the new board in a post-luncheon business session. The "Outlook for Cotton" was discussed by Paul Jones of the National Cotton Council and a similar report on man-made fibres by J. B. Quig of the textiles research division of E. I. du Pont de Nemours & Co., Wilmington, highlighted this session. Mr. Jones pointed out that "cotton will continue to dominate most of the (sheet, pillowcase, towel, men's, women's and children's apparel) markets despite serious competition from paper and synthetic products.

Concluding feature of the three-day meeting was the reception and banquet, for which His Excellency, Carlos P. Romulo, Philippines Ambassador to the U. S., was the principal speaker. He discussed "America's Stake in Asia."

Allethrin Plant

(*From Page* 149)

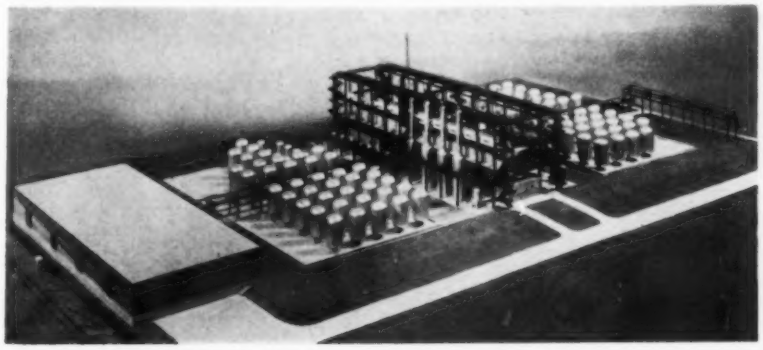
Nathan Green, chemists of the U. S. Department of Agriculture's Bureau of Entomology and Plant Quarantine. It is known technically as the homolog of Cinerin I, thus approximating one of the four major components of pyrethrins.

In spite of the chemical similarity of allethrin and pyrethrins, long noted as an effective insecticide, USI chemists and entomologists found it could not be used as a complete replacement for pyrethrins. Nevertheless, their research showed allethrin will serve as a valuable adjunct to pyrethrins, helping to spread the limited supplies of the natural product.

An effective insecticide in itself, allethrin has been shown valuable as an insecticidal agent when used with certain synergists, particularly piperonyl butoxide, "Sulfoxide," syngerist 264 and n-propyl isome, their effectiveness being rated in the order named. Its effectiveness against insects varies with the type of synergist employed, mode of application and other factors, and it is reported that as little as 0.2 per cent allethrin is lethal to a mosquito in flight.

In giving credence to the contention that allethrin is not a substitute for pyrethrins, USI entomologists have found that when used alone as an insecticide, or used in combination with most synergists, allethrin's reaction differs in varying degrees compared with that of pyrethrins. Due to their lengthy experience and knowledge of pyrethrins, USI chemists rec-

Model of new allethrin plant now being built at Institute, W. Va., by Carbide and Carbon Chemicals Co., a division of Union Carbide and Carbon Corp., New York. When completed in 1954 it will be the largest plant producing this new insecticide.



"That's for me!"

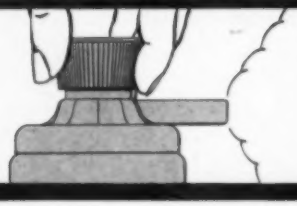
your customers will say of these

THREE NEW Pres-O Aerosol TOPS

NEW in richness of design. NEW in ease of operation

TILT-TOP — For whipped cream, shaving cream and other foam products. Will bring new joy to users everywhere. Operated by tilting the top.

TOUCH-TOP — For cosmetics, hair lacquers, insecticides, paints — for anything that can be Aerosol sprayed. Light pressure does it. No finger fatigue. You can bet this top will get a BIG welcome.



TWIS-TOP — For spray *or* foam. Easiest to use. No parts to lose. Unit construction. Needs no over-cap. A twist opens or closes it. No after leak, drip or puff.

Pres-O Tops are styled to fit *your product*. You can have them in a wide choice of rich colors. They're wonderfully attractive and they'll add new sales appeal to your Aerosol package.

Here's the Pres-O #100 Series VALVE

which has proved such a phenomenal success in the cosmetics field. This Pres-O Valve has given satisfaction and trouble-free service to **MORE THAN TEN MILLION USERS!** Nothing else on the market compares with it • All metal working parts. Heavily tinned to resist corrosion • Holds spray pattern • Designed by engineers who have long specialized in Aerosol, it's **mechanically right and stays that way** • Available for every type of spray — and for foam too. • Suitable for Crown cans, for seamed cans, for every kind of Aerosol container.

Put your Aerosol valve problem up to the men who engineered the first successful shaving cream Aerosol dispenser. Ask us to prove these claims. You'll be glad you accepted this invitation to **INVESTIGATE!**

OIL EQUIPMENT
Laboratories, Inc.
Bridge Street • Elizabeth, N. J.

ognized allethrin's value in the expanding development of their industry and are confident it will find an important place in the insecticide field.

In the case of aerosols, it appears that combinations of allethrin and of allethrin and pyrethrins with piperonyl butoxide will be effective and economically competitive with older formulas. From the work accomplished at laboratories, such as USI's Baltimore research organization, it appears that what has been found regarding aerosols will hold equally well for household sprays.

Alters "Larvex" Claims

Zonite Products Corp., New York, recently agreed to comply with a Federal Trade Commission order to stop advertising claims that "Larvex" gives a sure and positive protection against any degree of moth damage to garments and clothes.

CSMA Luncheon Feb. 18

Henry E. Blanchford, representing the American Bleached Shellac Manufacturers Association, was the principal speaker at a recent luncheon meeting of the Chemical Specialties Manufacturers Association, held at the Hotel Roosevelt, New York, Feb. 18. Mr. Blanchford is a recognized authority on the uses of shellac.

Termite Control Folder

A six-page folder, "Effective Termite Control with Chlordane," is being distributed under the auspices of the Velsicol Corp., Chicago. The folder covers origin and description of termites, why and how they enter buildings, how to detect their presence, how to identify them, how chlordane kills termites and how to use it. The company has also issued an 8-page booklet covering in condensed form, the pests controlled by chlordane with method of application and recommended concentrations. Included are recommendations for flies, ants, roaches, fleas, ticks, lice, and a long list of agricultural insect pests. Copies are available from the company at 330 East Grand Ave., Chicago, 11.

Chem. Specialties at Garden Show

DOG repellants are becoming of increasing interest to home garden owners, J. S. Stutt, sales manager of Goulard & Olena, Skillman, N. J., said during the recent garden supply and power equipment trade show in Chicago. He based his statement, he said, on the steadily growing demand for his company's brand of dog repellant and facts from other sources. The company displayed one of its widely selling 16 oz. consumer size packages at the show.

Bonide Chemical Co., Utica, N. Y., showed a variety of chemical specialties of interest in the sanitation field, along with its line of insecticides, fungicides, herbicides, etc.

Noted in the display were "Dogzix", a dog repellant, "Trex", a repellant for treating female dogs when in season; an ant dust and "Antzix", a poison syrup for killing ants; a termite repellant; "Littertox" for controlling poultry lice; "Quix", flea powder for pets; "Flezix" flea and lice powder for dogs, cats, birds; "Bontu" rat killer containing Antu; and "Crow-Fez," a crow repellant for protecting planted corn seed. Bonide was represented at the show by their Chicago distributor, Val-A Co., with George Bridgeland in charge.

F. C. Hild, president of Hild Floor Machine Co., Milwaukee, Wisc., presents to Sister M. Leola, of St. Mary's Hill, a first prize check for $300, in a contest in connection with the 25th anniversary of the firm. St. Mary's had a floor machine which appears to be the oldest existing model made by the firm in the country. This relic of a bygone day was manufactured in 1918 and was still in use in 1952.

B. G. Pratt Co., Hackensack, N. J., presented a long list of chemical products for the gardener, among which was noted "Pratt's" Linso soap, a refined liquid soap for use as a spreader in insecticides. Also shown was a five percent chlordane and "50 W" chlordane for control of ants, chiggers and other lawn and garden insects. "Pratt's 622" insect repellant for application to exposed parts of the body was likewise featured. J. I. Shafer in charge.

Acme Quality Paints, Inc., Detroit, Mich., had a newly designed label on its six percent chlordane dust package, featuring its use for ant control both in garden and house, the latter a new application. "Garden Guard," an insecticide whose rotenone content has been increased to one percent, is now being offered for use against fleas and lice on dogs, as well as for general garden insect control. A. B. Kuemmin, midwest district sales manager, was enthusiastic about the increased attention value of the new design lithographed directly on the metal which now replace the paper label formerly used on the "Weed-No-More" container.

Tobacco By-Products & Chemical Corp., Richmond, Va., is now applying its "Black Leaf" brand name to its general line of chemicals, rather than, as in the past, only to its nicotine poisons for agricultural use, according to the company's representative, Hugh M. Davis. Noted in the display was a "Black Leaf" rat and mouse killer; a "Black Leaf" pyrenone aerosol for household pests; another "Black Leaf" DDT aerosol for flies, mosquitoes, etc., and a "Black Leaf" slug and snail pellet.

Eldridge in New Post

Merrill Eldridge was appointed recently technical service manager of Warwick waxes for specialty papers by Sun Chemical Corp., Long Island City, N. Y.

WAXES
Non-Rubbing
Prepared Liquid
Prepared Paste
Powdered Dance Wax

ELECTRIC DEODORIZER

MANUFACTURING EXCLUSIVELY FOR THE JOBBER !

DISINFECTANTS AND DEODORANTS
Odorless Disinfectants
Coal Tar Disinfectants
Pine Oil Disinfectants
Urinal Cakes
Deodorant Blocks
Perfume Sprays
Pine Deodorant

INSECTICIDES
Fly Sprays
Moth Sprays
Chlordane Sprays
D D T Sprays

LIQUID SOAPS
Hand-Floor
Shampoo

BLOCK CONTAINER

POLISHES
Metal Furniture
Bar Oil Cedar Oil

AEROSOL DEODORIZER

PARA BLOCKS WITH CHLOROPHYLL

WRITE FOR OUR DESCRIPTIVE CATALOGUE AND PRICE LIST

UNCLE SAM CHEMICAL CO., Inc.
575 WEST 131st ST. Est. 1920 NEW YORK 27, N. Y.

For Better Protection against Pests use these

PRENTOX PEST-TESTED

BASIC INSECTICIDE CONCENTRATES

DDT — Wettable and Dry Powders; Oil Concentrates; Emulsifiable Concentrates

CHLORDANE — Oil Concentrates; Wettable and Dry Powders; Emulsifiable Concentrates

ROTENONE — Derris and Cube; Powdered Concentrates

SABADILLA — Ground Seed; Dust Concentrates

TOXAPHENE — Wettable Powders; Dust Concentrates

LINDANE — Wettable and Dry Powders; Oil Concentrates; Emulsifiable Concentrates

PYRONYL CONCENTRATES — Piperonyl Butoxide-Pyrethrum Concentrates for Space Sprays, Livestock Sprays and General Pest Control

PYRETHRUM — Powder; No. 20 Extract

RAX POWDER — A rodenticide Containing Warfarin

For information on Any of These PRENTOX Pesticide Concentrates Write to

PRENTISS DRUG & CHEMICAL CO., INC.
110 William Street, New York 7, N. Y.
9 South Clinton Street, Chicago 6, Ill.

Montan Wax

(*From Page* 137)

stood, the domestic montan can replace large proportions of many formulae where the more costly vegetable waxes are now used. Its ease of emulsifying makes it a valuable assistant in a wide variety of commercial emulsions.

In American Lignite's early development work, much time and effort were directed to bleaching and refining the crude montan wax. Montan can be bleached easily by the use of chromic acid. The earlier work at Ione on bleaching followed along this line, patterned after the German methods of bleaching. In this investigation, some bleached montans were produced on a pilot plant scale but it was discovered that a large percentage of the wax esters were destroyed in the bleaching process. After these results had been evaluated, American Lignite research was concentrated on other methods of refining and decolorizing the dark, crude montans which would retain these valuable esters.

Thus far, decolorizing operations are in the pilot plant stage of development, but based on the studies to date, the feeling has been expressed by Mr. De Angelis that the company is on the threshold of one of the most important wax developments of recent years. Details of the decolorization process cannot be divulged at this time. All that is known is that the process uses no chromic or other acids as a bleach and retains the original wax esters.

Recently announced and now in full production are two new types of montans as follows: (1) a modified montan which has been deresinified, but is still dark in color, with high melting point range around 190 deg. F. (2) a lighter colored montan having excellent oil retention and flow properties with a melting point in the range of 178 deg. F. Samples of both of these waxes are available directly from the company.

In the opinion of Mr. De Angelis, the new types of decolorized montan wax when perfected will lead the way as the best substitutes for carnauba yet produced. Pilot plant operations show that the new refined montan waxes may be further modified to give waxes with almost identical properties to carnauba, including color, hardness, oil retention, flow and melting point. Only in the case of acid value is there a variation, that of the montan being higher.

Mrs. Newman Dies

Mrs. Fanny Newman, mother of Samuel and Benjamin Newman of Creco Co., Long Island City sanitary supply firm, died January 21. Funeral services were held at Gutterman's, Brooklyn. Samuel Newman is eastern regional vice-president of the National Sanitary Supply Association, in which he has been active for a number of years.

From Tires...

(*From Page* 141)

that it wore out sooner than he expected," Mr. Silver explains, "and our salesman tells him to expect a new one without charge with his next delivery. It's just as simple as that—and what a business building idea it is."

The only advertising that this firm does are quarter-page insertions in telephone directories and the mailing of a catalog to all its customers and prospects. These catalogs picture every item sold by the firm and under the picture the price and other information appear. This "illustrated price catalog" makes ordering simple for customers. The old adage that "one picture is worth 1,000 words," holds true and it reflects itself in a volume business by telephone.

In addition, every time a new salesman is added to the staff a two-column, five-inch advertisement is placed in both the Wilmington's newspapers. These advertisements picture the new employee, welcome him to the firm and tie in with his sales operations. This is the extent of the Diamond Chemical and Supply Company's newspaper advertising.

Trade Marks

(*From Page* 81)

packaged base powder dissolvable in water to form a cleaning fluid. Filed May 7, 1951 by Service Industries, Philadelphia. Claims use since October 10, 1949.

Petisol—This for detergents. Filed December 12, 1951 by Petroleum Solvents Corp., New York. Claims use since December 6, 1951.

Chlorofom—This for toilet soap and shampoo. Filed June 17, 1952 by Fitzpatrick Bros., Chicago. Claims use since May 27, 1952.

Brock—This for liquid wax for polishing leather. Filed April 11, 1950 by Brock Chemical Co., North Abington, Mass. Claims use since 1938.

Swiftsheen — This for liquid floor wax. Filed February 13, 1951 by Gerson - Stewart Corp., Cleveland. Claims use since January 1931.

Versen-ol—This for complexing, chelating, or sequestering agents. Filed January 24, 1952 by Bersworth Chemical Co., Framingham, Mass. Claims use since July 10, 1951.

Pro-Nyl — This for whiting agent containing no soap, for use on all types of fabrics, especially nylon. Filed April 18, 1952 by Hickory Specialty Co., Hickory, N. C. Claims use since April 4, 1952.

Cabinet-San—This for deodoant for household and institutional use. Filed May 10, 1952 by Huntington Laboratories, Inc., Huntington, Ind. Claims use since November 10, 1936.

Sanitary Sam's—This for dispensers of the aerosol type containing insecticides or room deodorants; for disinfectants and hypochlorite solutions. Filed May 24, 1952 by John Sexton & Co., Chicago. Claims use since July 10, 1951.

Calmor — This for granulated soap. Filed April 25, 1951 by Cal Products Co., Los Angeles. Claims use since Febraury 7, 1951.

Hydrolate—This for water soluble textile washing compound having water softening properties. Filed July 27, 1951 by Diamond Alkali Co., Cleveland. Claims use since September 1943.

Whistle—This for cleaner for dogs having insecticidal properties. Filed October 11, 1951 by House of Huston, Miami, Fla. Claims use since September 25, 1950.

Lo-Hi pH — This for metal cleaning compound. Filed December 15, 1951 by Northwest Chemical Co., Detroit. Claims use since June 2, 1941.

Dial—This for toilet soap and shampoo. Filed December 17, 1951 by Armour & Co., Chicago. Claims use since June 1, 1948.

VIP—This for germicidal liquid detergent. Filed February 25, 1952 by Hysan Products Co., Chicago. Claims use since July 15, 1951.

Yes Ma'am—This for detergent for household and industrial use. Filed April 25, 1952 by Geo. W. Winbourne, Santa Ana, Calif. Claims use since March 22, 1951.

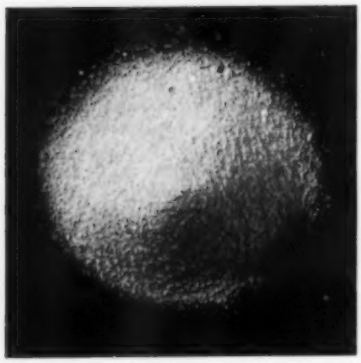
KG Liq-Wiz—This for all purpose liquid cleaner. Filed May 15, 1952 by K. G. Co., Chicago. Claims use since February 10, 1951.

here's the preferred

SPRAY DRYER

for

SOAP "BEADS" and POWDERS



Here's an actual, unretouched photograph of a SYNDET spray dried by us.

Our engineering department will be glad to answer inquiries concerning the Zizinia Spray Dryer.

Here is the Dryer of lowest cost, easiest installation. Operating simplicity, stainless steel construction, of course. Booklet and quotations upon request.

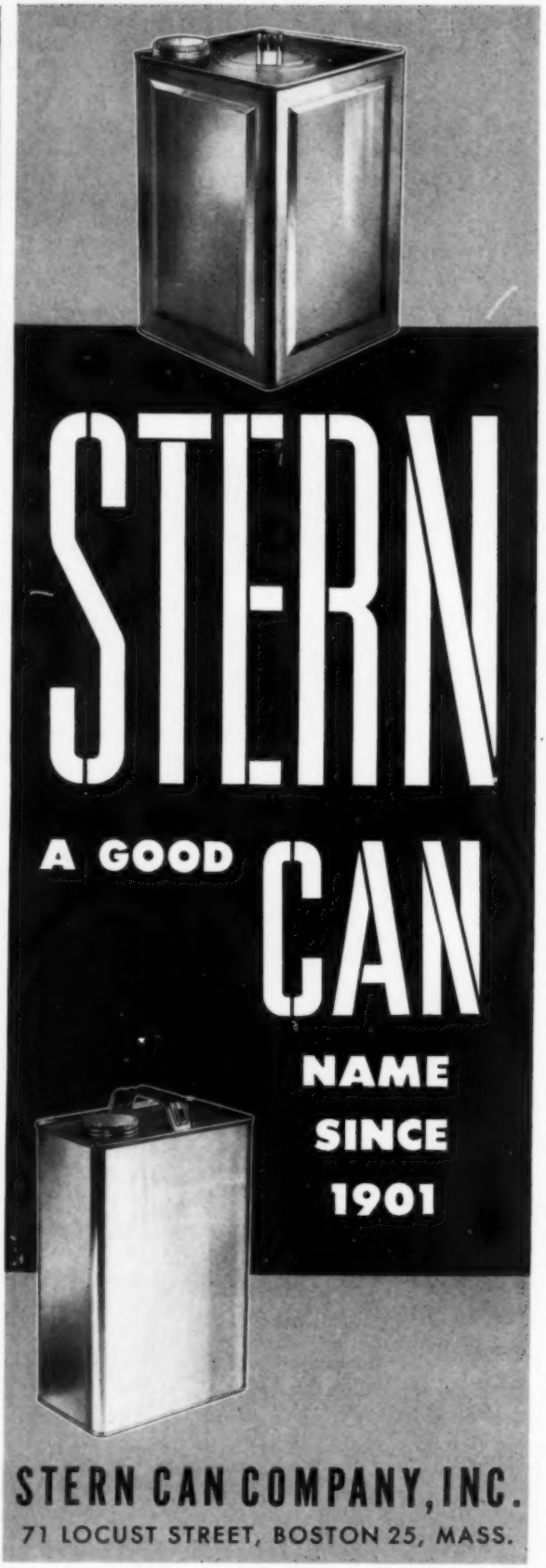
Engineered by Snell

RESEARCH LABORATORIES

FOSTER D. SNELL INC.

29 WEST 15TH ST. NEW YORK 11, N.Y. — WA 4-8800

CHEMISTS · ENGINEERS



Aerosols . . .

(*From Page 147*)

E to a source of dry dichlorodifluoromethane gas. Open valve *E* and allow the gas to pass into the bottle for 10-15 seconds.

9. Close valve *E* and disconnect the apparatus from the pressure tank.

10. Keeping the can in dry ice or in a cold cabinet, attach the can holder *H*, as close to the bottom of the can as possible. The can and sampling device may be assembled before needed if they are kept in dry ice or a cold cabinet.

11. Wipe the surface to be penetrated with dry absorbent cotton and puncture it with the thief device, keeping valve *B* closed, before a film of frost forms. Do not leave the puncturing unit on the can for any extended period, since the insecticidal ingredients may cause the rubber collar to swell.

12. Keeping the bottle unit in the canvas bag, attach the can and the sampling device to the bottle assembly by means of the refrigerator quick-coupler unit *C*.

13. Invert the apparatus, open valves *D* and *B*, and let all the ethylene glycol possible run into the can.

14. Close valve *D*, and shake the contents of the can with a gentle circular motion to extract the water in the container.

15. Invert the apparatus again, and release the pressure by opening valve *E*. Then close valve *E*. Remove the canvas bag and place the bottle assembly in ice water; as a safety precaution use a metal container to hold the ice water.

16. Open valve *D* and transfer the contents of the can to the bottle. Hasten the transfer by holding the can in your hands until the frost disappears. Later apply heat to the underside of the can with a 250-watt infrared lamp held not less than 8 inches away. Do not overheat the can. Localized heating is prevented by moving the lamp. When the flow of liquid slows down or stops, close valve *D*, open valve *E*, and swirl the assembly to allow the dichlorodifluoromethane to escape. Then close valve *E* and reopen valve *D*, and continue to relieve the pressure in this manner, until seven-eighths of the insecticide solution is removed from the can.

17. Remove the apparatus from the ice water, place the bottle assembly in the canvas bag, invert the complete unit over a sink, open valve *E* and let the insecticide layer escape until the glycol layer is about 1 inch from the outlet. Close valve *E;* remove the canvas bag, and replace the bottle assembly in the ice water.

18. Open valve *E* to relieve the pressure; close it and then open valve *D* and transfer all the ethylene glycol from the can to the bottle. At the end of the transfer, close valve *D* and open valve *E*. Close valve *E* and reopen valve *D*. If no flow of glycol is obtained, the transfer is complete.

19. After transfer of the can contents has been completed, close valves *D* and *B* and detach the sampling device from the bottle-assembly unit by loosening the quick-coupler unit *C*.

20. If more than ¼ inch of propellent remains in the bottle, invert the assembly and open valve *E* to allow the gas to escape. If less propellent is present, remove it by opening valve *E* slowly and by gently swirling the bottle.

21. Remove the bottle from the frame, quickly place electrodes in the bottle, and attach them to the pH meter. Turn on the magnetic stirrer and then titrate the glycol solution with standardized Karl Fischer reagent.

22. Release the pressure in the can by opening the thief valve; disassemble the device and weigh the can.

23. Calculation:

$$\frac{\text{mg. of water per ml. of K. F. reagent} \times \text{ml. of K. F. reagent} \times 1000}{\text{grams of sample}} = \text{ppm of water in container}$$

Analytical Results

BY the procedure described water determinations have been made with two types of formulas in aerosol cans containing known amounts of water. The formulas of the aerosols are as follows:

Pyrethrum-DDT (G663)

	Percent
Pyrethrins	0.4
Piperonyl butoxide	1.0
DDT	2.0
Aromatic hydrocarbon solvent	5.0
Deodorized kerosene	6.6
Trichloromonofluoromethane	42.5
Dichlorodifluoromethane	42.5

Allethrin-DDT (G845)

	Percent
Allethrin	0.6
DDT	2.0
Aromatic hydrocarbon solvent	5.0
Deodorized kerosene	7.4
Trichloromonofluoromethane	42.5
Dichlorodifluoromethane	42.5

Known amounts of water were added at the time the cans were being filled and sealed. The analyses shown in table 1 include the added moisture and the water from materials and filling process.

All the analyses were carried out in regular commercial low-pressure aerosol containers.

Precautions and Errors

IT is necessary to follow the procedure as described to obtain reproducible results. The Karl Fischer reagent must be not more than 10 days old, and if in the meantime the water equivalent falls below 3 mg./ml. the reagent should be discarded. During the titration avoid excessive exposure of the burette tip to the atmosphere. When starting a titration with an empty burette, or if the burette has been empty for more than 30 minutes, flush at least four times. Always dry flasks or bottles overnight and allow them to cool for at least one hour in a desiccator before using. When the tungsten electrode becomes tarnished, it must be cleaned and sensitized by dipping the end for 5 to 10 minutes in fused sodium nitrite at a temperature slightly above the melting point. Remove the electrode from the molten liquid, wash it with water, and dry it with acetone or methanol. The electrodes may stand under a liquid

"... and I keep dreaming about building a little factory in New Jersey!"

A dream come true . . .

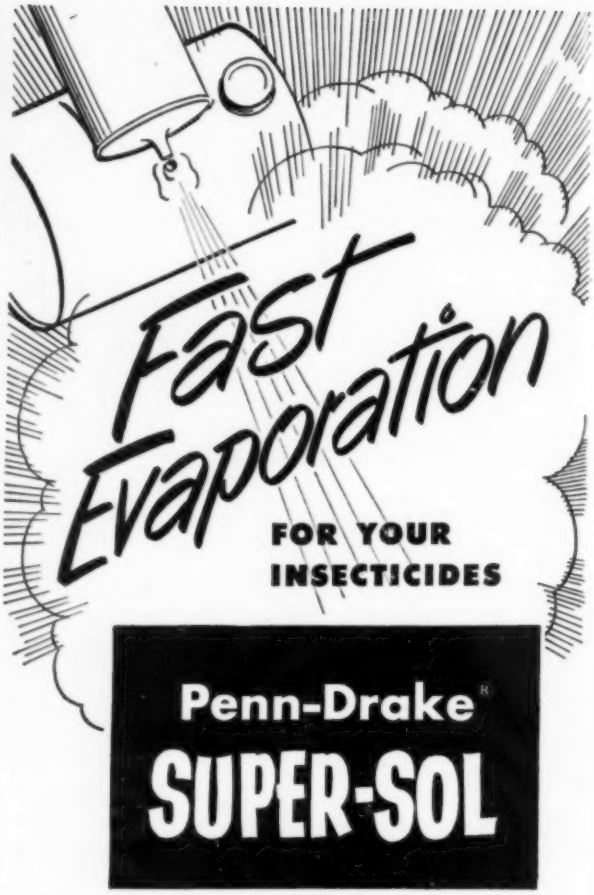
On February 1st we moved into our own building at 1312 Fifth Street, North Bergen, New Jersey.

Here our office, laboratory and plant are conveniently located, with the Lincoln and Holland Tunnels two miles from our doorstep and the New Jersey Turnpike less than a mile away.

Here, too, we find fresh air, quiet and space — the ideal environment for the making of fine perfume oils.

Noville
ESSENTIAL OIL COMPANY
1312 Fifth Street
North Bergen, N. J.
Telephone: Union 7-9080

Cartoon reproduced by courtesy of Public Service Electric and Gas Company, New Jersey.



Wherever fast drying and rapid evaporation are essential, you will profit in quality by basing your insecticides on Penn-Drake Super-Sol. This odorless, super-refined hydrocarbon solvent is the ideal base oil carrier for mothicides and in the preparation of DDT residual sprays. It also is highly recommended for use in odorless paints, home dry cleaners, metal parts cleaners and in other products requiring a high flash point.

SPECIFICATIONS

A.P.I. Gravity	53/55
Specific Gravity at 60° F	0.755/0.765
Saybolt Viscosity at 100° F	29.5/30.5 sec.
Flash Point C.O.C.	130/135
Fire Point C.O.C.	140/145
Initial Boiling Point	330/340
Distillation End Point	430/440
Unsulfonatable Residue	98%
Color	Water white
Odor	Practically none

Write for samples and further details

PENNSYLVANIA REFINING COMPANY
GENERAL OFFICES: BUTLER, PENNA.
Refinery at KARNS CITY, PENNSYLVANIA
Branches: Cleveland, O., Edgewater, N.J. Representatives in Principal Cities
Also Makers of: Rubber Solvent, VM&P Solvent, Cleaning Solvent

Table I

Milligrams of water found in pyrethrum-DDT and allethrin-DDT aerosols to which known amounts of water were added

Sample	No water added	About 100 ppm		About 200 ppm		About 300 ppm	
		Added	Found	Added	Found	Added	Found
Pyrethrum — DDT							
1	17.6	47.4	68.3	96.8	102.7	150.2	151.9
2	20.1	51.6	66.9	100.	95.3	152.7	158.8
3	14.7	50.7	67.7	95.7	97.0	155.6	156.9
4	16.2	...	...	81.7	92.7	151.6	164. [1]
Allethrin — DDT							
1	25.6	50.8	59.9	93.1	103.	151.7	152.5
2	17.1	51.6	67.7	85.8	97.6	154.3	165.4
3	15.2	51.1	60.5	84.7	94.9	154.2	161.7
4	17.0	50.4	63.4	86.1	97.9	152.7	166.5

[1] Pyrethrum emulsified and sulfur came out of solution from Karl Fischer reagent.

such as methanol.

During the transfer of the aerosol solution from the can to the bottle, always apply heat from the infrared light to the bottom of the can. Never allow the contents to become warm to the hand. Excessive heat will cause the Karl Fischer reagent in the ethylene glycol to react with the lining of the can and give high results. It has also been observed that in all cans in which rust was found high results were obtained. Always clamp the puncturing device to the can while holding it in the freezing cabinet to eliminate the formation of frost on the outer surface.

Before the analysis is attempted, it is suggested that the book by Mitchell and Smith (4) be consulted.

Summary

THE Karl Fischer method of moisture determination has been modified for insecticidal-aerosol formulations in finished containers. By use of the method as described approximately 95 per cent of the water in a container can be determined when the water content ranges from 15 to 150 ppm. When more than 150 ppm are present, it will be necessary to make two extractions with ethylene glycol to maintain the same accuracy.

Literature Cited

(1) Reed, F. T. and R. C. Downing. The Analysis of Moisture in Aerosol Formulations. *Chem. Spec. Manuf. Assoc. Proc.* 1951, pp. 41-44.

(2) Fulton, R. A. An Improved Apparatus for Observing Aerosol Solutions for Determining Freon-Insoluble Matter in Pyrethrum Extract. U. S. Bur. Ent. and Plant Quar. ET-273, 3 pp. (1949).

(3) Neuss, J. D., M. G. O'Brien, and H. A. Frediani. Sodium Tartrate Dihydrate as a Primary Standard for Karl Fischer Reagent. *Anal. Chem.* 23: 1332-1333 (1951).

(4) Mitchell and Smith. Aquametry. Interscience Publishers, Inc., New York (1948).

Paint Removers

(*From Page* 136)

varnishes, stuccos, bitumens and similar coatings.(35)

A rather specialized preparation for removing asphaltic coatings has been described recently by Showalter.(36) Such a composition may consist of a suitable aromatic hydrocarbon solvent, hydrophilic and hydrophobic petroleum sulfonates and a lubricating oil fraction.

Considerably more specialized are the compositions for removing decalcomanias described by the Raubs. (37) The percentage ranges of active ingredients are given in their patent as follows:

	Percent
Acetone	10-15
Ethyl acetate	5-20
Methyl acetate	5-20
Water	30-75

Thickeners or carriers, such as bentonite or waxes, may also be used to aid in applying these compositions to vertical or curved surfaces.

Bibliography

1) Lesser, M. A.: *Soap & Sanit. Chem.* 22:153, June, 1946

2) Lesser, M. A.: "Modern Chemical Specialties," New York, MacNair-Dorland, 1950, pp. 454-467

3) Anon.: *Dow Diamond* 11:33, Nov. 1948

4) Kuentzel, L. E. & Liger, A. W.: *Iron Age* 160:78, Oct. 9, 1947

5) Anon.: "Paint and Varnish Removers," Washington, National Bureau of Standards, Letter Circular LC749, 1944, 6 pp.

6) Bennett, H.: "Chemical Formulary," New York, Chemical Publ. Co. Vol. IX, 1951, p. 312

7) Snell, C. T.: *Chem. Ind.* 64:414, 1949

8) Ciba, Ltd.: Swiss Pat. 251,882, 1948

9) Zumbrunnen, F.: Swiss Pat. 260,579, 1949

10) Alex Societa a.r.l.: Ital. Pat. 455,643, 1950

11) Langlois, D. P. & Wolff, H.: U. S. Pat. 2,493,676, 1950

12) Douglass, C. W.: "The Development and Evaluation of Paint Remover Used by the United States Air Force," AF Tech. Report 5713 (PB 97658), Washington, Office of Technical Services, U. S. Dept. Commerce, 1948

13) McKeller, R.: *Dow Diamond* 13.12, June, 1950

14) Anon.: "Bureau of Aeronautics Specification, Remover, Paint, Non-Inflammable, Water Rinsable Type," No. 52R15 (Aer), May 9, 1947, amended April 1, 1949

15) Anon.: *Chem. Ind.* 67:78, June, 1950

16) Kuentzel, L. E.: U. S. Pat. 2,433,517, 1947

17) Packer, H.: U. S. Pat. 2,418,138, 1947

18) Hutson, C., Kidd, J. C. & Blair, C. E.: U. S. Pats. 2,495,728-9, 1950

19) Kuentzel, L. E.: U. S. Pat. 2,507,983, 1950

20) Baum, N. L. & Wynkoop, J.: U. S. Pat. 2,443,173, 1948

21) Baum, N. L. & Wynkoop, J.: U. S. Pat. 2,548,766, 1951

22) Muller, O. P., Jordan, J. W. & Brancato, J. J.: *Offic. Dig.*, Fed. Paint & Varnish Clubs 294:451, 1949

23) Peterson, E. P. & Muller, O. P.: U. S. Pat. 2,531,825, 1950

24) Bond, D. C. & Bernard, G. S.: U. S. Pat. 2,447,052, 1948

25) Riccetti, E.: Ital. Pat. 441,063, 1948

26) Kuentzel, L. E.: U. S. Pats. 2,479,-628-9, 1949

27) Kuentzel, L. E.: U. S. Pat. 2,507,984, 1950

28) Kuentzel, L. E.: U. S. Pat. 2,507,985, 1950

29) Craver, J. K.: U. S. Pat. 2,438,038, 1948

30) Pessel, L.: U. S. Pat. 2,563,417, 1951

31) Marling, P. E.: U. S. Pat. 2,437,964, 1948

32) Bishop, R. B. & Denton, W. I.: U. S. Pat. 2,508,215, 1950

33) Sweeney, O. R. & Arnold, L. K.: Iowa Eng. Expt. Sta. Bull. No. 169, 1950, 47 pp.

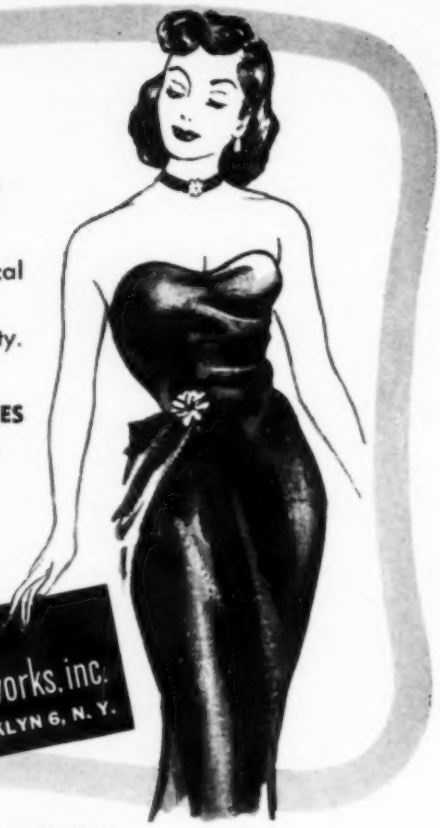
34) De Tullio, G.: Ital. Pat. 447,553, 1949

35) Sega, L.: Ital. Pat. 448,210, 1949

36) Showalter, J. C.: U. S. Pat. 2,571,956, 1951

37) Raub, G. R., Sr. & Raub, G. R., Jr.: U. S. Pat. 2,478,319, 1949

Class will tell



. . . and in the Sanitary Maintenance field, **TRIO** chemical products give top performance, are economical in operation and are made under high standards of quality.

FLOOR WAXES — paste, liquid emulsion, emulsion paste wax — **LIQUID SOAPS—CLEANERS—POLISHES DISINFECTANTS — INSECTICIDES — DEODORANTS**

Technical know-how plus years of experience are the **TRIO** formula to solve your maintenance problems.

Standard packages — Bulk QUANTITIES
Special Formulas — Private label work

Write for descriptive literature and price quotations.

TRIO chemical works, inc.
341 SCHOLES STREET · BROOKLYN 6, N. Y.

SANITARY SUPPLIES MANUFACTURERS FOR DISTRIBUTORS — JOBBERS — WHOLESALERS

MAY WE SEND A HELPING HAND

AROMATICS PB PERFUMERS MATERIALS

to assist you with your perfume needs!

Over the years, the thousands and thousands of samples we have sent manufacturers have pointed the way to products with the scent-appeal that means success. Creating fragrances best suited for your product is our business. It is a business built upon the thousands of outstanding perfume compound samples we have formulated for widely varying needs. And we're still building. Please permit us to send you, promptly and without obligation, samples best suited for your requirements.

PERRY BROS., Inc.

220 Flushing Avenue Brooklyn 5, N. Y.

4347 McPherson St. Louis 8, Mo. | **48 W. Division St. Chicago 10, Ill.** | **Brookfield Connecticut**

Baird & McGuire Robbed

A robbery which made the front pages of all New England newspapers and brought an eight-state police alarm occurred at the plant of Baird & McGuire, Inc. at Holbrook, Mass. on January 24. The robbers who later proved to be three ten-year-old boys aroused the fears that they had come into contact with typhoid cultures used for disinfectant testing in the Baird & McGuire laboratories or had stolen cultures in test tubes which might conceivably start a typhoid epidemic.

Ralph E. Hamilton, chief chemist for Baird & McGuire warned state and local police that the persons who participated in the break might contract typhoid or start an epidemic. The eight-state teletype alarm followed. The three boys confessed the break to their parents following radio broadcasts and the culprits and their families, thoroughly scared, were taken to hospitals and inoculated.

The break was discovered by William George, plant foreman, on an emergency visit to the factory to check the heating system on Sunday, January 25. Cameron M. Baird stated that the youngsters ransacked the bacteriological laboratory, scattering records, culture tubes and equipment over the floor, but a later check showed that no culture tubes had been taken away from the laboratory. Gordon M. Baird, president of the firm, was in Florida on a business trip at the time of the break. The boys were taken into juvenile court at Quincy, Mass. but no charges were pressed against them by Baird & McGuire.

New Johnson Wax

"Jubilee Kitchen Wax" is the latest product of S. C. Johnson & Son, Inc., Racine, Wisc. The wax contains a detergent, and the company claims it cleans and leaves a hard wax film on all porcelain surfaces, on wood and metal and on painted walls. "Jubilee", which retails at 75 cents a pint, was test marketed last fall in Erie, Pa., and Binghamton, N. Y. It is being promoted nationally on radio stations and through full page, four color advertisements in women's magazines.

Form Vaporizer Assn.

Manufacturers of lindane vaporizers voted to form an association, at a meeting held at the Alms Hotel, Cincinnati, Jan. 16. M. G. Parnell, Insect-O-Lite Co., Cincinnati, was appointed permanent chairman of the steering committee for the certification of incorporating the association.

At the meeting, the group elected the following officers: Mr. Parnell, president; and Walter Kohn, Walter C. Kohn Co., Highland Park, Ill., treasurer.

Wilbur Williams Dies

Wilbur Williams, 70, owner and operator of Williams Sanitary Supply Co., Wilwaukee, died Jan. 19, in St. Michael's Hospital after a long illness. A native of Georgia, he moved to Milwaukee about 20 years ago. He was a 32nd degree Mason and a member of Kilbourn Masonic lodge and of the Shrine. He is survived by his widow, Winifred Smith Williams.

Coming Meetings

AAEE Southwestern Branch, Hotel Galvez, Galveston, Tex., February 26, 27, 1953.

AAEE North Central States Branch, St. Louis, March 19, 20, 1953.

Canadian Pest Control Operators, 11th annual conference, Ontario Agricultural College, Guelph, Canada, May 11, 12, 13, 1953.

Chemical Specialties Manufacturers Association, midyear meeting, Hotel Drake, Chicago, May 17-19.

Eastern Pest Control Operators, 13th annual conference, University of Massachusetts, Amherst, Mass., February 5, 6, 7, 1953.

National Pest Control Association, 21st Annual Convention, Hotel Nicollet, Minneapolis, October 19, 20, 21, 1953.

National Sanitary Supply Association, annual exhibit and convention, Conrad Hilton Hotel, Chicago, March 22-25, 1953.

Pennsylvania Annual Short Course, Pennsylvania State College, March 3, 4, 5, 1953.

Synthetic Organic Chemical Manufacturers Association, joint meeting with MCA, Greenbrier Hotel, White Sulphur Springs, W. Va., June 11-13.

Toilet Goods Association, annual convention, Waldorf-Astoria Hotel, New York, May 12, 13, 14, 1953.

Richard C. Lawson Weds

John H. Lawson, president, Federal Varnish Division of Enterprise Paint Mfg. Co., Chicago, announced recently the wedding of his son, Richard C. Lawson, to Miss Mary Lois Harwell of Statesville, N. C., on January 17. The couple resides in Pittsburgh, where Mr. Lawson is representative for Enterprise Paint Manufacturing Co.

New Sugar Cane Wax

Maurycy Bloch, vice-president of Warwick Wax Co., subsidiary of Sun Chemical Corp., Long Island City, N. Y., announced recently the availability of "Duplicane" 517, a new development in sugar cane wax specifically designed for the needs of the carbon paper and business forms industries.

Polish Firm Incorporates

A charter of incorporation has been issued by the State of New York to William Howard Manufacturing, Inc., for the production of polishes and other related items. Directors are: Jack Schatzberg, Joseph Siegel and Harold Spielman, all of New York City.

FTC-d-Con Hearing

Hearings involving d-Con Co., Chicago, were concluded recently under an initial decision issued by the Federal Trade Commission that advertising claims which allegedly misrepresent the effectiveness of the rodenticide preparations, "d-Con," and "d-Con's Mouse Prufe," must be stopped. Under the order the company was told it must not claim that either of the preparations: is completely safe and may be used without danger to human beings and domestic or farm animals; contains a special attractant that is more successful or alluring than all other rodenticide baits or regular feeds; eliminates all after-odors usually associated with the use of rodenticides; is the only rodenticide on the market for killing mice that contains the active ingredient "Warfarin"; or that "d-Con" was the subject of a report or article appearing in the *Reader's Digest*.

emulsifiable

BARECO WAXES

To meet the growing demand for emulsifiable petroleum waxes, the Bareco Oil Company now presents PETRONAUBA . . . a completely new wax to answer the difficult problems in YOUR polish formulations. Petronauba is the result of years of research in the Bareco laboratories. It has been subjected to hundreds upon hundreds of tests in order to evaluate performance under scores of wax emulsification methods.

Bareco's Petronauba offers **emulsification stability . . . hardness . . . gloss . . . plus uniformity . . . high melting point . . . low price . . . and availability.**

Write Bareco today and samples of the new Petronauba will be sent to you. Test these samples in your own laboratory. Information on properties and usage will be gladly forwarded on request.

- READILY EMULSIFIABLE
- HIGH MELTING POINT
- HARDNESS
- HIGH GLOSS
- ECONOMICALLY PRICED

BARECO OIL CO.
BOX 2009, TULSA, OKLA.
121 S. BROAD ST., PHILADELPHIA, PA.
1500 S. WESTERN AVE., CHICAGO, ILL.

Thousands of Maintenance Managers use AMERICAN STANDARD man-sized wet-mops, sweep mops and applicators exclusively. The nation's most successful distributors regularly supply those thousands of AMERICAN STANDARD enthusiasts.

for both ROUGH and smooth floors

For years the VICTORY Wet Mop has been our biggest seller. Thousands of maintenance men use VICTORY wet mops exclusively! Heavy-duty, quality yarn . . Your best bet, if you want a mop of extraordinary durability, performance and economy.

"BIG X" SWEEP MOP

This sweep mop is our leader. Snatches up dust on contact. It's nationaliy famous. A durable giant—available in widths up to 5 feet! Can be removed from the block for washing Once you try BIG X, you'll use no other.

HOLZ-EM APPLICATOR

You'll enjoy the fast, thorough performance of this luxurious, high-speed applicator. Reduces cost of applying wax, seals, varnish, etc. More professional floor finishers use HOLZ-EM than any other applicator

Jobbers

Complete catalog of our nationally-advertised mops, applicators, dusters, mitts, and custom-made items, on request.

"TOPS IN MOPS"
AMERICAN STANDARD MFG. COMPANY
Incorporated 1908
CHARLES E. KREBS and WALTER O. KREBS
2515 S. GREEN STREET • CHICAGO 8, ILL.

News

Groggins to Food Machinery

P. H. Groggins, who retired on Jan. 1 after 26 years in various government posts, including the Department of Agriculture, and more recently the National Production Authority, is now acting as general chemical consultant for the administrative office of the chemical division of Food Machinery and Chemical Corp., New York. Mr. Groggins reports to Dr. M. Y. Seaton, senior vice-president and technical coordinator of the chemical divisions in the office headed by Ernest Hart, executive vice-president of Food Machinery.

P. H. GROGGINS

Mr. Groggins, who was with Monsanto Chemical Co., St. Louis and E. I. du Pont de Nemours & Co., before entering government service, is well known as editor of "Unit Processes in Organic Synthetics," a standard reference book for workers and students in the chemical engineering field. In recent years he has spent most of his time in the agricultural chemicals field dealing with insecticides, herbicides, fungicides, etc., on which subjects he is considered an authority.

May Rochester Germ. P.A.

The appointment of Walter H. May as purchasing agent of Rochester Germicide Co., Rochester, N. Y. to succeed the late C. W. Crowell, who died last year, was announced recently. A graduate of the class of 1943 of the University of Rochester, Mr. May recently returned from a tour of active duty as a lieutenant in the U. S. Navy. He joined Rochester Germicide Co. in 1946 as traffic manager and assistant purchasing agent. Previously, from 1943 to 1946 he had served as an officer on minesweepers in the Pacific. A member of the Naval Reserve, Mr. May was recalled to active duty in January, 1951 with the rank of lieutenant and assigned to destroyer duty, serving on the *Leary* in the Mediterranean area.

New Wax Consultant

William W. Lewers for the past ten years chief chemist for the Griffin Manufacturing Co., Brooklyn, has announced the establishment of his own chemical and engineering consulting service with offices and laboratory at 207 Norman Ave., Brooklyn, N. Y. He will specialize in chemical research, development and testing of waxes, polishes, emulsions, paints, automotive specialties, and various dispersion problems.

Dr. Lewers is a graduate of Lehigh University in chemical engineering and received his Ph. D. from the University of Pittsburgh. Prior to his association with Griffin, he was with DuPont for fifteen years in the development of polishes, paints, and other chemical specialties.

Whitmore Joins Reilly

Harry E. Whitmore has joined the staff of Reilly Tar & Chemical Corp., Indianapolis, to promote the sale of products from the firm's newly formed synthetic organic chemicals department, it was announced recently by Peter C. Reilly, Jr., vice-president. Mr. Whitmore received his chemical education at Pennsylvania State College, where his father, the late Dr. Frank C. Whitmore, was dean of the school of chemistry and physics. Mr. Whitmore has been an active participant in the Career Conferences and served as general chairman of the 5th annual career conference. He is councilor of the Chicago section of the American Chemical Society, editor of its Chemical Bulletin and chairman of the section's committee on manpower. During World War II he was a member of the Corps of Engineers of the U. S. Army and worked on the atomic bomb at Oak Ridge, Tenn.

HARRY E. WHITMORE

Curley Co. Expands

A large scale expansion program with emphasis on contract manufacturing and packaging of chemical specialties was predicted recently by Curley Co., Philadelphia, with the appointment of Harold S. Riker as general manager of the contract packaging and manufacturing division. Mr. Riker is a former district manager of Commercial Solvents Corp., New York. Curley Co. was organized in 1930, and in the past 10 years has built an increased volume of business in contract manufacturing and packaging of products in the chemical, toiletry, drug and paint fields.

NSSA Local Meetings

A meeting of southwestern regional members of the National Sanitary Supply Association was held at the Adolphus Hotel, Dallas, Jan. 15. Sixty-five attended the luncheon and dinner. T. W. Bud Smith of Bancroft Paper Co., Shreveport, La., southwestern regional vice-president of the N.S.S.A., was in charge of arrangements for the meeting. Officers of the National Sanitary Supply Association, who were present for the meeting and spoke included Martin J. Peters of Moore Brothers Co., New York,

For better emulsion polishes

PENNOWAX

#620		#630	
Melting Point °F	180 min.	Melting Point °F	180 min.
Color	yellow	Color	yellow
Pen. 100 gr. wt.	6 max.	Pen. 100 gr. wt.	7 max.
Acid No.	20-25	Acid No.	30-35
Sap. No.	55-65	Sap. No.	75-85

PENNOWAXES are especially produced and refined for the manufacture of emulsion polishes. Compare PENNOWAX with your present product for cost, quality, uniformity.

CARTOWAX

A series of waxes manufactured for the paper industry — milk cartons, bread wrap, candy wrap, frozen food package, etc.

AMORWAX

AMORWAX is a registered trade mark for a complete series of waxes for the ultimate in lamination impregnation, moisture-proofing and insulating compounds and greases. Melting Points up to 400° F.

We invite your inquiries for technical data, prices, and samples.

PENNOTEX OIL CORPORATION

29 Broadway **New York 6, N. Y.**

— Waxes for wax formulations made by a wax manufacturer. —

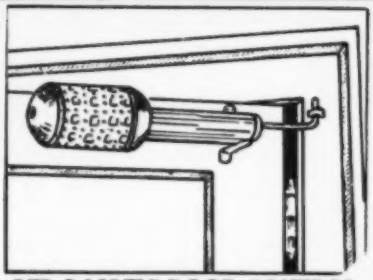
Compare for *RESULTS*
Compare for *PRICE*

AER-O-MATIC WALL BLOCK

Aer-O-Matic Wired Bowl Block

- Aer-O-Matic Electric Deodorizer
- The Sensational Di-Fly Lindane Vaporizer

AER-O-MATIC *Products*



AER-O-MATIC DOOR CONTROL DEODORIZER

Blocks made to your specifications and size and imprinted with your trademark.

WRITE FOR FREE LITERATURE

AER-O-MATIC BLOCKETTES

Wrapped individually in cellophane and packed in a handsome tubular telescope type container.

SEE US AT THE

N.S.S.A. SHOW BOOTH #10

ALLIED BLOCK CHEMICAL COMPANY

FIFTH AND BINGHAM STREETS PITTSBURGH 3, PA.

Photo taken during recent southwestern regional N.S.S.A. meeting in Dallas.

N.S.S.A. president, and Leo J. Kelly, executive vice-president of N.S.S.A., Chicago.

Other speakers included Henry Stern of Superior Chemical Co., Houston; Melton Levy of National Disinfectant Co., Dallas; Lacy E. Crain, Conco Chemical Co., Dallas, and E. Robertson of Robertson Janitor Supply Co., Dallas. Subjects discussed at the meeting included "Training and Employing of Salesmen." It was decided to have more such meetings in the future. A similar meeting was held in Atlanta, Jan. 19.

—— ♦ ——

Danziger in New Post

Harold L. Danziger, formerly assistant sales manager of the automotive private brand division of R. M. Hollingshead Corp., Camden, N. J., was recently named manager of private brand sales.

—— ♦ ——

Gregory Joins Chase

Joseph Gregory, formerly production manager of aerosol products for Aeropak, Inc., Chicago, recently joined Chase Products Co., Maywood, Ill., where he is in charge of the aerosol custom filling division. The announcement was made recently by C. W. Svendson, president of Chase. Before being with Aeropak, Mr. Gregory was in the research department of Continental Can Co.

—— ♦ ——

Delco Files in Del.

A charter of incorporation was filed recently with the Secretary of State in Dover, Del., by Delco Chemical Co., Wilmington cleaning fluid firm. Capitol of the company was listed as $200,000.

Baird & McGuire in Waxes

Baird & McGuire, Inc., Holbrook, Mass., recently announced the addition of a line of floor waxes to their list of maintenance chemicals. The new wax line includes "Baird's Micarn," a slip resistant self-polishing wax; "Baird's Waxsol," a solvent type paste wax, which is also available as a liquid solvent wax, and "Baird's Professional Grade" solvent type paste wax.

In addition to the new wax line, Baird & McGuire is now making potash soaps. Other items made and sold to the trade by the firm include disinfectants, insecticides, cleaners, larvacides, etc.

—— ♦ ——

Willets Coffin Dies

Willets Coffin, 60, president and owner of Electro-Silicon Co., Brooklyn polish firm, died Jan. 15 at his home in Port Washington, N. Y. He served overseas with a machine gun company during World War I. His clubs included Laurentian of Canada, National Riflemans, Crescent Athletic of Brooklyn and Downtown Association of Manhattan.

—— ♦ ——

Pennsalt Shifts Staples

The appointment of Philip C. Staples as Chicago district sales manager of the industrial chemicals department of Pennsylvania Salt Manufacturing Co., Philadelphia, was announced recently. He replaces John C. Hampson, who returns to the Philadelphia offices as product supervisor in the same department. Mr. Staples is a graduate of Harvard University, and joined Pennsalt in 1937. After completion of the company's student training course, he served in Pennsalt's technical service, industrial chemicals and metal processing departments. Most recently, he has been manager of Pennsalt's Washington office.

—— ♦ ——

Sanitation, Safety Show

The 1953 version of the Modern Sanitation and Safety Association trade show, sponsored by Formula Floor Products, Inc., Newark, N. J., will be held April 14 and 15, in the Terrace Room of the Mosque Building, Newark, N. J. Manufacturers and distributors of sanitation equipment and supplies are being invited to attend and occupy display booths. Last year there were 30 exhibitors and 650 guests. Jack D. Hirsch, head of Formula Floor Products, is president of Modern Sanitation and Safety Association.

—— ♦ ——

Washburn Improves Cleaner

The incorporation of a nontoxic fungus control agent and chlorophyll in its "Deep Tone Cleaner" was announced recently by T. F. Washburn Co., Chicago. Samples and complete information on the improved cleaner are available to distributors wishing to sell the product under their own label, according to M. L. Magee, vice president and general manager of Washburn.

—— ♦ ——

New Fritzsche Price List

A new wholesale price list of its line of essential oils, aromatic chemicals and related materials was issued recently by Fritzsche Brothers, Inc., New York. Copies are available to wholesaler purchasers by writing the company at 79 Ninth Ave., New York 11, N. Y.

Tamms SILICA
Soft Amorphous Type

Grades to meet various abrasive requirements . . . for all kinds of metal polishes.

Tamms TRIPOLI
Rose and Cream Colors

Once-ground, double-ground and air-float — ideal grades for buffing and polishing. Also rubbing compounds.

Preferred for POLISHES!

Tamms

Tamms products are widely used in the polish trade, preferred for quality results. Write today for prices and samples.

Tamms MULTI-CEL
Diatomaceous Earth

Top grade, ground extremely fine. A milder abrasive than silica. Best for silver polish.

Tamms BENTONITE
(Suspension Medium)

Very finely-ground colloidal clay. Wholly soluble — absorbs 5 times its weight in water.

Dept. RM-3, TAMMS INDUSTRIES, Inc., 228 N. La Salle Street, Chicago 1
Formerly TAMMS SILICA COMPANY

For FILTERING & FILLING
small plant or batch lots of
PHARMACEUTICALS, COSMETICS, CHEMICALS, SOAPS, Etc.

Two Ertel units that make small production efficient. They have all the desirable features of Ertel high production equipment: EFS-B FILTER has single hand wheel for simple trouble-free operation, bronze or stainless circulatory system, accomodates accepted Ertel Asbestos Filter Sheets. PORTABLE FILLER has automatic overflow system, non-drip spouts, bottle size flexibility up to gallons. And, both units can be easily moved from place to place. Write for detailed information on this important equipment... it belongs in your plant.

ERTEL ENGINEERING CORPORATION
KINGSTON 6, NEW YORK
Branch Office & Showroom Located in New York City
COMPLETE LINE OF *Liquid Handling Equipment*

A producer of sulphonated products has entered the field of Alkyl aryl sulfonates and is now offering to chemical manufacturers, jobbers, distributors and re-packers the following products.*

SULFONIC ACID
Alkyl aryl sulfonate
minimum salt content

SLURRY
high salt content
for spray and drum drying

Liquid Detergents
25% and 40% active ingredients

Special products formulated to your specifications
Technical data sheets available upon request

*No sales made to consumers

Write to Box No. 663

SOAP & SANITARY CHEMICALS
254 W. 31st Street New York 1, N. Y

ADVERTISING CLOSING DATE for SOAP AND SANITARY CHEMICALS is the

10th of preceding month

YOUR COOPERATION IN FURNISHING COPY INSTRUCTIONS ON TIME WILL HELP US MEET OUR PUBLICATION DATE.

New Ryania Booklet

"Ryania, a Botanical Insecticide," is the title of an illustrated booklet just issued by S. B. Penick & Co., New York. The booklet describes the results of Ryania's use in the control of certain agriculture pests, and gives directions for applications in each case. In addition, it presents the status of laboratory and field tests of Ryania as an insecticide for stored grains, and outlines the results of tests against other insects. The booklet also tells of Ryania's toxicology, pharmacology, chemistry, and physiological effects.

Canco Sales Post to Staley

The naming of Allan C. Staley, Jr., as assistant general manager of sales of American Can Co., New York, was announced recently by T. E. Alwyn, sales vice-president. Mr. Staley was formerly manager of sales for the Pacific Division of the company, and is succeeded by Robert C. Stolk, assistant manager of sales for the division. C. W. Curry of Chicago, now a sales division manager for Canco's central division, becomes assistant manager of sales in place of Mr. Stolk, C. W. Roberts, vice-president in charge of the Pacific division, said in making announcements of the shifts. Mr. Staley now assists in the direct supervision of all Canco sales activities in the U. S. and Canada. Mr. Stolk directs sales activities on the West Coast, Hawaii and Alaska from the Pacific Division's headquarters in San Francisco.

Commercial Heptachlor

Commercial production of heptachlor is now under way at the new Memphis plant of Velsicol Corp., Chicago, it was announced recently. Heptachlor, one of a group of chlorinated hydrocarbon compounds found to be insecticidal, has been tested and found effective against German roaches, mosquitoes, ants, and a number of agricultural insects. Approval of the U. S. Department of Agriculture for labels recommending the use of heptachlor against these insects has been applied for. The material is available in the form of water emulsion concentrates and as a dust for agricultural purposes.

Mich. Chem. Head Resigns

Resignation of Roland P. Place as president of Michigan Chemical Co., St. Louis, Mich., was announced last month. He left the company in order to devote more time to other interests. Mr. Place continues to serve as a member of the board of Michigan Chemicals. Donald B. MacFarlane, chairman of the board, has been assigned the added duties of president.

Beach, Pool Conference

The sixth National Public Health Engineering Conference will be held at Gainesville, Fla., Mar. 24-25. The conference, sponsored by the civil engineering department, Engineering and Industrial Experiment Station, College of Engineering, University of Florida, is devoted to papers and discussion of swimming pools and bathing beaches.

Mich. State PCO Course

The Michigan State short course in pest control is being given at Michigan State College, E. Lansing, Michigan, Tuesday and Wednesday, Mar. 17 and 18, it was announced recently by O. L. Potter, of O. L. Potter Pest Control, Trenton, Mich. Mr. Potter is vice-president of the Michigan Pest Control Operators' Association, which is sponsoring the course.

Charter to X-All

The X-All Chemical Corp., Camden, S. C., recently obtained a charter to manufacture, sell, distribute and apply insecticides materials. W. P. Thomas is president.

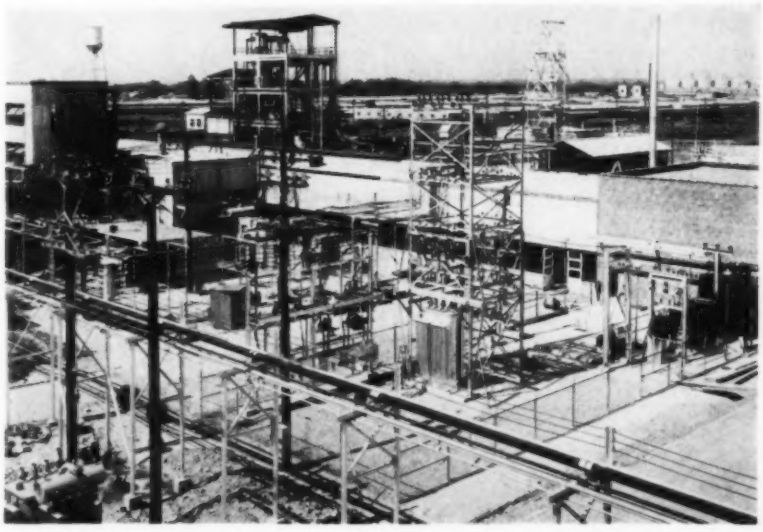
Sulzberger to IPAC

Frank L. Sulzberger, president of Enterprise Paint Co., Chicago, of which Federal Varnish is a division, was recently appointed chairman of the Illinois Public Aid Commission, an unsalaried office which administers old age pensions and relief. Mr. Sulzberger has been a member of the commission since his appointment in 1942 by former Governor Dwight H. Green. Mr. Sulzberger's appointment as chairman was made by Governor William G. Stratton.

Hood Plant at Capacity

Full production of bleaching and cleaning fluid and liquid starches at the newly completed plant of the Hood Chemical Co. at Charlotte, N. C., was announced recently by John Pelligrini, manager. The output of the plant is being distributed to the retail trade in the Carolinas. The company is to utilize common carrier motor truck companies for transporttation. The Charlotte plant produces "Hood 33" bleach, "EC" liquid starch, and "Zero" liquid cleaner, for household and other uses.

New Memphis heptachlor plant of Velsicol Corp., Chicago.



FOXY SAYS:
"KLEENAIRE IS TOPS FOR PROFITS"

★ INDIVIDUALLY WRAPPED
★ MADE FROM PURE PARADICHLORO-BENZENE
★ PERFUMED IN YOUR CHOICE OF SCENT
★ ATTRACTIVE DISPOSABLE WALL CONTAINER
★ SAVES CLEANING AND SERVICING
★ FLAPS CONTROL RELEASE OF SCENT
★ CONTAINERS CUSTOM IMPRINTED

CHLOROPHYLL ADDED ON REQUEST

America's Leading Manufacturers of Deodorant Blocks

KLEENAIRE KEMIKILS, INCORPORATED
2227 24th STREET • DETROIT 16, MICHIGAN

SANITARY SUPPLY SALES

LONG established sanitary supply manufacturer plans expansion in sales areas and will consider men for exclusive representation in certain new territories. Top rated firm whose products are already favorably known in these new territories. Will consider experienced salesmen at this time for Ohio, Western Pennsylvania, and North Carolina.

Sanitary supply salesmen with experience and following in these territories will find this opportunity worth looking into. Our employment record is good as our people stay with us for years. Salary and commission. Record of applicants must stand rigid investigation. Our other salesmen know about this advertisement.

Send full particulars in confidence, with photo, if available to

Box No. 693

SOAP & SANITARY CHEMICALS

254 West 31st St., New York 1, N. Y.

Reprints of

SYNTHETIC DETERGENTS UP-TO-DATE

(Newest Revision)

now available . . .

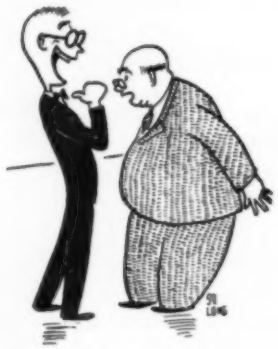
44 pages listing over 1000 detergent products by trade name, manufacturer, class, type, formula and uses—price $1.50 per copy. Remittances must accompany order

ORDER DIRECT FROM AUTHOR

John W. McCutcheon

475 Fifth Ave. New York 17, N. Y.

GENIUS!



He really classifies himself as a genius since he read "SOAPS AND DETERGENTS" — he's up on the practical phases of soap making, equipment, raw materials, coloring and perfuming, etc., and he tells everybody about it. If you don't have a copy of this book, better order it today! Price $9.00 in U.S.A., $9.50 elsewhere.

Send check with order
Add 3% Sales Tax if in New York City

MAC NAIR-DORLAND CO.
254 W. 31st STREET NEW YORK 1, N. Y.

N.S.S.A. Meets March 22-25

THE "clinic" approach to trade show technique is being featured at this year's convention of the National Sanitary Supply Association, being held March 22-25 at the Conrad Hilton Hotel, Chicago, it was announced recently by Leo J. Kelly, executive vice-president. In addition to showing new sanitation chemicals and equipment, methods for using and applying these new products will be explained to distributors by trained representatives of exhibiting firms. The 1953 convention and trade show of the National Sanitary Supply Association is expected to be the largest, from the standpoint of the number of exhibitors, and best attended annual gathering of NSSA in its history.

Although program details for the annual meeting have not been announced as yet, it is understood that the 1953 meeting will follow the outlines of similar meetings held previously. The first day of the meeting, Sunday, March 22, will be given over to the opening of the exhibit hall of the Conrad Hilton. The exhibits will be open all day, starting at 10:00 a.m. and running through 10:00 p.m. The exhibits will be opened to members and non-members of the National Sanitary Supply Assn., and it will not be necessary to register to visit the exhibit floor. On the three days thereafter, everyone entering the exhibit hall must be registered and have a badge identifying him and his company's affiliation.

The convention portion of the four-day gathering opens officially at luncheon on Monday, March 23. At that time NSSA officers will present their reports and the organization's board of directors will be introduced. Although association business will be the main topics of the addresses, there may be a guest speaker, as has been the custom at previous meetings. The exhibit hall is open Monday morning, and Monday afternoon and evening following the business meeting. Another business session is scheduled following luncheon on Tuesday. At this meeting officers and directors for the coming year are elected. The exhibit hall will be open Tuesday morning only. Following the post luncheon session on Tuesday, the meeting is adjourned and the exhibit floor closed to give those attending time to prepare for the reception and banquet Tuesday evening. The exhibit hall reopens Wednesday morning and remains open until the final closing at 1:00 p.m.

During the annual meeting of the association it is expected that considerable time will be devoted to a discussion of the NSSA's recently announced study course for salesmen of member firms. The course, designated Institute of Sanitation and Modern Cleaning Methods, consists of 25 lessons covering such subjects as bacteriology, insects, rodents, hand and machine dishwashing, sanitation chemistry, history of sanitation, washing of windows, walls and ceilings, food poisoning, molds and yeasts, personal hygiene, communicable diseases, planning an efficient cleaning program, care and maintenance of wood floors, facts about brushes, washing glasses and other utensils, background on wax, metal cleaning, etc. Each lesson is contained in a booklet covering the subject in easy-to-read, condensed fashion. At the conclusion of each booklet is a quiz, which the salesman fills out and returns to the Association offices for grading. Upon completion of the course, he is presented with a diploma and a small wallet size certificate certifying that he has completed the course satisfactorily. The cost of the course is $12.00 per enrollment.

—— ♦ ——

Forms Pesticide Unit

The formation of Planetary Chemical Division to distribute nationally a line of insecticides, rodenticides, fungicides, wood preservatives, emulsifiers and other agricultural chemicals was announced recently by Universal Match Corp., St. Louis. Robert G. Hayward, Jr., is directing Planetary as sales manager. The new unit will handle both bulk and package quantities of chemical materials. The Planetary line will be produced at plants in Creve Coeur, Mo., where sales offices are also being maintained.

Mr. Hayward was formerly division manager for Ultra-Life Laboratories of East St. Louis, Ill. Prior to that he was assistant advertising manager of the organic and phosphate divisions of Monsanto Chemical Co., St. Louis.

—— ♦ ——

Federal Floor Care Booklet

The sixth edition of "What To Use On Floors . . . And How To Use It" was announced recently by Federal Varnish Division of Enterprise Paint Co., Chicago. This newly revised 48-page booklet gives in detail the maintenance techniques and applications of surface finishes, preparation of surfaces and sealers. It also contains information on the upkeep of many types of flooring including asphalt and rubber tile, linoleum, concrete, cork, terrazzo, magnesite, marble, masonite, terrazzine and travertine surfaces. This booklet is available, free of charge, through sanitary supply distributors.

—— ♦ ——

Light Deodorizer Refills

A new, lightweight refill deodorizing wafer containing triethylene glycol was announced early this month by Scent-Flo Distributing Co., Pittsburgh. The new deodorizing wafer, which fits the Scent-Flo air freshener and other similar units, is claimed by the maker to last 1,000 hours. In addition to savings in weight—a carton weighs nine pounds—savings in cost are also claimed by the manufacturer. The new wafers come in spice and clover scents, and sell for 25 cents each in quantities of 100 or more; 30 cents each for quantities of less than 100.

PERFUME BASES

for

SOAPS — **COSMETICS**

DETERGENTS — **INSECTICIDES**

Neumann, Buslee & Wolfe, inc.

5800 NORTHWEST HIGHWAY, CHICAGO 31, ILLINOIS

WAXES

CARNAUBA	yellows - fatty refined - chalky north country
BEESWAX	african asiatic
JAPAN WAX	genuine superior brands
CANDELILLA	prime grade and refined
SYNTHETIC	high m. p. yellow

SHELLAC

ORANGE & BLEACHED
WAX FREE • BUTTON

WM. DIEHL & CO.
334 W. 42nd St., New York 18, N. Y.
Cable: DIEHLWILL BRyant 9-5211

PRIVATE FORMULA WORK

Let us manufacture it for you!

Those products which you are not equipped to manufacture yourself . . . those odd items which do not fit into your plant . . . mosquito repellent, flea powder, salves, ointments, tube filling, powder filling, etc. . . . we buy materials, containers, pack, store, and ship your specialties . . . most modern methods and equipment . . . strictly confidential . . . and our charges are low . . . consult us without obligation.

R. Gesell, Incorporated
200 W. HOUSTON STREET NEW YORK

SEIL, PUTT & RUSBY, INC.

Analytical and Research Chemists

For over thirty years we have specialized in the analysis of pyrethrum, rotenone and other

ORGANIC INSECTICIDES

It has been our privilege to make many analyses for government agencies and most leading importers and manufacturers in the insecticide field.

We are also making frequent analyses of the synthetic insecticides, such as D.D.T., B.H.C., Chlordane, Toxaphene, Heptachlor, Allethrin, etc., etc.

Consultation without obligation

16 East 34th Street, New York 16, N. Y. • *Phone:* MU 3-6368

Penick Making EQ-53

EQ-53, the new moth-proofing liquid, can now be supplied in bulk, it was announced recently by S. B. Penick & Co., New York. The new shipments will also carry label data, ingredient statement, directions, etc., according to the specifications of U.S.D.A.

Conco Opens La. Branch

Conco Chemical Co., Dallas, opened a branch plant in Shreveport, La., for the manufacture of soaps, detergents, and sanitary chemicals, it was announced recently. The new unit, Conco Chemical Co., Inc. of Louisiana, handles sales and distribution of Conco products in Louisiana, Mississippi, Tennessee, and Alabama. S. G. Knowles has been appointed general manager of the new company, while Lacy E. Crain is president of the new Louisiana as well as the Texas firm.

Dr. Stoll Visits U. S.

Dr. Max Stoll, who has won the Fritzsche Annual Award for outstanding research in the field of essential oils and related chemicals for 1953, is arriving in the United States February 22 from Geneva, Switzerland. The medal will be presented to Dr. Stoll at the spring meeting of the American Chemical Society in Los Angeles. During his visit he will give lectures at Massachusetts Institute of Technology, Princeton University, and before several scientific groups.

Charles C. Bryan, president of Firmenich Incorporated, New York, American affiliate of Firmenich & Cie. of Geneva, will be host at a luncheon for Dr. Stoll on March 3 at the University Club in New York at which the scientist will outline some of the work which won him the 1953 Fritzsche Award.

Col. Rehn PEA Speaker

Colonel John William H. Rehn, First Army Corps Medical Laboratories, was the guest speaker at a recent meeting of the Professional Exterminators Association, held at the American Museum of Natural History in New York. Col. Rehn told the group that he has found no traces of immunized flies in camps and argued his facts from these discoveries.

A view of the new plant of Canadian Germicide Co., Toronto, Canada, which was recently opened for the manufacture of soaps, disinfectants and cleaners. The plant is located on several acres of land, west of Toronto at 591 The Queensway, and increases the company's manufacturing and office space by 300 per cent over its former facilities. Before it was incorporated as a separate corporation in 1916, the Canadian Germicide Co. was a branch of the Rochester Germicide Co. with which it is affiliated.

Floor Finish Folder

Hadco Corp., Cleveland, has recently issued a four-page folder on its "NS 20" safety floor finish. The illustrated folder gives specifications on the first application and maintenance of the finish, and claims it is water resistant, odorless and not affected by freezing. The finish is available in 55, 30 and 15 gallon drums, and five and one gallon cans. The folder is available on request.

Wear Resistant Polish

An emulsified petroleum wax, "Cardis One," was introduced recently by Warwick Wax Co., Chanute, Kan., a subsidiary of Sun Chemical Corp., Long Island City, N. Y. The company claims that Cardis One is the first emulsifiable petroleum wax with a penetration of one-two, and is one of the hardest waxes on the market. It claims Cardis One to be wear resistant and scuff-proof, with a high gloss and durability.

Agrees to FTC Order

Advertising that "2-Way Roach and Insect Spray" will kill or control insects that normally infest food or feeds without rendering such food and feeds unfit for consumption, is to be discontinued under the terms of a consent settlement which Nash & Kinsella Laboratories, Inc., St. Louis, signed recently with the Federal Trade Commission.

Under the consent settlement, the firm also agreed to discontinue making the representations that its insecticide will control lice or mites on poultry, or kill lice or fleas on dogs, cats or other animals without being injurious to the animals. Also that it kills flying insects by spraying it in the air; will, when sprayed on doorways, screen doors, light bulbs and other surfaces kill or repel insects; will kill all termites whether inside or outside buildings; is harmless or non-poisonous and that children can suffer no harm from it; will kill flies or insects when sprayed into an electric fan by means of a hydraulic sprayer.

The company also agreed to stop claiming its preparation is more effective against all insects than DDT, and that aerosol bombs ordinarily contain a smaller percentage of active ingredients than they actually do contain. Or that a quart container of the preparation contains more insecticide in comparison with an aerosol bomb than it actually does.

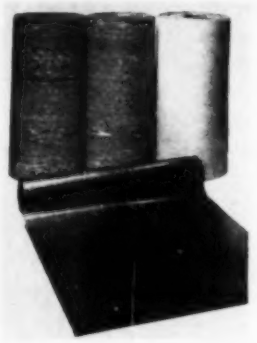
Dr. Phillips Joins Movidyn

Dr. J. Neal Phillips Jr., University of Texas biochemist, has been appointed associate director of research and development for the United States Movidyn Corp., Chicago, it was announced recently by Christopher G. Janus, president. Dr. Phillips, a graduate of the institution which he just left served in both the Army Air Force and the Navy during World War II.

At the same time, the company revealed the production of "Algaedyn", a new product for controlling the growth of algae, scum and slime in swimming pools, and all types of water systems. The new chemical compound has as its principal ingredient "Movidyn", introduced earlier by the firm.

SOF-TRED-TYLE

A new profit-maker for the jobber—best quality rubber tile surface bonded to high quality sponge rubber. Comfortable and attractive to the eye—economically priced. Easy to install and maintain—original lustre held with damp mopping and waxing. Available in marbleized red, green, grey and black—standard length rolls approximately 30 feet—standard widths—3 feet (36 inches) only.



For additional information write today

SUPERIOR RUBBER MFG. CO.

6842 South Wentworth Avenue Chicago, Ill.

. . . big sellers for the jobber

PER-MO WARFARIN

rat and mouse killer

• • •

Packed in 1 lb. and 4 lb. tin containers.

• • •

5 Year Guaranteed

* **Per-Mo Mothproof Liquid** packed in Pints, Quarts, ½ gal., gal. and 5 gal. containers or in Drums.

* **Per-Mo Flameproof Liquid** packed in Drums or gal. Containers.

* **Per-Mo Rat & Mice Liquid** packed in 8 oz. bottles or in Gals.

* **Per-Mo Rat Bits** made with RED SQUILL (Fortified) packed in 4 oz., 16 oz. and in Bulk.

* **Per-Mo Rat Paste** made with RED SQUILL (Fortified) packed in 4—8 and 16 oz. jars.

* **Per-Mo Brown Rat Killer** made with ANTU. Packed in 4—8 and 16 oz. jars.

* ALL PER-MO PRODUCTS CAN BE PACKED UNDER YOUR OWN PRIVATE LABEL

PER-MO STANDS THE TEST IT'S BY FAR THE BEST

Write today. Full particulars first letter

PER-MO PRODUCTS CO.
1715 East 36th Street
Kansas City 3, Mo.

Forgotten Something?

Have you forgotten to renew your subscription to *SOAP AND SANITARY CHEMICALS*? Have you suddenly discovered you are missing back copies? Don't let YOUR subscription expire. Renew now!

MAC NAIR-DORLAND COMPANY

254 W. 31st Street New York 1, N. Y.

Kurly Kate

METAL SPONGES

Use the Kurly Kate metal sponge for clearer—easier—thorough cleaning. Will not splinter or rust—never cuts hands—never injures metal or plated surfaces. Kurly Kate tops all metal sponges for safety, efficiency, economical speed. Made in STAINLESS STEEL, NICKEL SILVER and BRONZE.

GUARANTEE
Send for a trial order
Satisfaction fully guaranteed

KURLY KATE CORPORATION
2215 S. MICHIGAN AVE. CHICAGO 16, ILL.

ORDER FROM YOUR JOBBER OR WRITE DIRECT

PROFESSIONAL *Directory*

Carl N. Andersen, Ph.D
Consulting Chemist
Cosmetics, Soaps and Synthetic Detergents
342 Madison Ave.
New York 17, N. Y.
Phone: VA 6-0492
Laboratory: Briarcliff Manor, New York
Phone: Briarcliff 6-1550

ALVIN J. COX, Ph.D.
Chemical Engineer and Chemist
(Formerly Director of Science, Government of the Philippine Islands; Retired Chief, Bureau of Chemistry, State of California Department of Agriculture.)
ADVISOR ON AGRICULTURAL CHEMICAL PROBLEMS AND INVESTIGATIONS
Consultant in reference to spray injury and damage claims including imports of fruits and nuts, formulas, labeling, advertising and compliance with law.
1118 EMERSON STREET
PALO ALTO, CALIFORNIA

HOCHSTADTER LABORATORIES
INC.
128 Water Street New York City 5
Specializing in analysis, research and formula development for manufacturers of
Soaps Detergents
Waxes Polishes

HUDSON LABORATORIES, INC.
Consulting
Chemists and Bacteriologists
117 W. 13th St., New York 11, N. Y.
Bacteriology Chemistry
Toxicology Dermatology
Testing Analysis Formulation Research
Disinfectants Antiseptics Sanitizers
Antiseptic and Deodorant Soaps
Advice on labeling and advertising claims
Albert F. Guiteras, Ph.D.
Director
Rebecca L. Shapiro, M.S.
Chief Bacteriologist

WAX PROBLEMS?
Experienced in the Development and Manufacturing of Wax Blends, Floor Waxes, Emulsions, Shoe Polishes, Dressings, Cleaners, Household Specialties.
KRONER LABORATORIES
Inc.
275 Water St. New York City
OFFER
Consulting Service in Analysis Research and Formulation.

LANCASTER, ALLWINE & ROMMEL
Registered Patent Attorneys
Suite 402, 815 - 15th St., N. W.
Washington 5, D. C.
•
Practice before U. S. Patent Office. Validity and Infringement Investigations and Opinions.
Booklet and form "Evidence of Conception" forwarded upon request.

ALAN PORTER LEE
ENGINEERS
ASSOCIATES
Contracting — Consulting
Complete Plants, Engineering Services & Laboratory Facilities For
Soaps, Fats, Oils & Related Products
Domestic & Foreign
General Brochure Upon Request
19 South St., Morristown, N. J.
Cable Address—
Alportle, Morristown
MO 4-4428

J. W. McCutcheon
475 Fifth Avenue New York 17
MU. 3-3421
Consulting Chemist
Specializing in
oils, fats, soaps synthetic detergents and glycerine
Laboratory: 367 E. 143 St., New York 54, N. Y.
ME. 5-4298

C. C. McDONNELL, D.Sc.
Formerly Chief Insecticide Division, Production and Marketing Administration, U. S. Department of Agriculture
CONSULTANT
Insecticides, Fungicides, Disinfectants, Rodenticides, Weed Killers, Formulas, labeling, advertising and registration under the Federal Insecticide, Fungicide, and Rodenticide Act. Represent manufacturers at hearings before the Department of Agriculture.
122 Hesketh Street, Chevy Chase 15, Md.

MOLNAR LABORATORIES
Consulting, Testing and Research
Specializing in
Organic Synthesis
Product Development and Control
Disinfectant Testing and Formulation
Toxicity and Dermatitis Tests
Clinical Studies
Member A. C. C. & C. E.
211 E. 19th St., New York 3, N. Y.

JAMES P. O'DONNELL
Engineers
Complete Process Plants
Automatic Instrument Control
Surveys — Estimates
Construction Supervision
Initial Operation
39 Broadway New York 6

SEIL, PUTT & RUSBY, Inc.
Earl B. Putt, *President and Director*
Stephen S. Voris, Ph.D., *Chief Chemist*
Analytical and Consulting Chemists
Specialists in the Analysis of Organic Insecticides, Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations.
DRUGS—ESSENTIAL OILS—SOAP
16 East 34th St., New York 16, N. Y.

For PLANT MODERNIZATION and EXPANSION you can rely on NEWMAN'S

72 *years of experience* in new, used and reconditioned SOAP MACHINERY!

All items in stock, ready for shipment
Consult us on all your soap machinery needs
We are at your service

WE BUY & SELL SINGLE ITEMS OR COMPLETE PLANTS

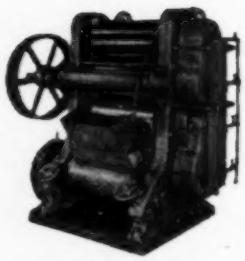
— THIS MONTH'S SPECIAL OFFERINGS —

Newman Brand New 1000, 3000 and 5000 lb. steel soap crutchers, steam jacketed, immediate delivery.

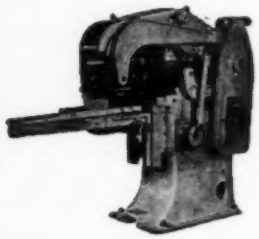
R. A. Jones automatic type "K" — simplex, duplex, triplex soap presses, thoroughly reconditioned.

Additional Precision Rebuilt Machinery with New Equipment Efficiency

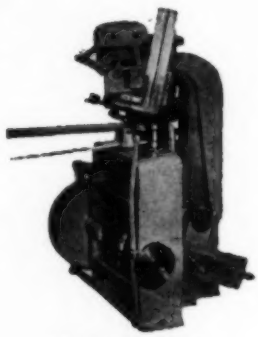
- H. Single Screw Soap Plodders, 4, 6, 8, and 10"
- H Automatic Soap Slabbers
- Empire State and Crosby Foot Soap Presses
- Toilet Soap Mills — 2, 3, 4, 5 roll
- Blanchard 10A Soap Powder Mill
- Mikro Pulverizer
- Filling and weighing machines for flakes, powder, etc.
- Steel Soap Frames, 1000 to 1200 lb. cap.
- Automatic Soap Wrapping Machines
- Sperry and Shriver Filter Presses, various sizes
- Amalgamators
- H. Automatic Soap Cutting Tables
- Proctor & Schwartz Soap Chip Dryers complete
- Dopp Steam Jacketed Soap Crutchers
- Powder Mixers, Day, Robinson, Broughton, etc., all sizes
- Soap Dies for Automatic and Foot Presses
- Pumps, various types and sizes
- Crystallizing Rolls



TOILET SOAP MILLS
3 Roll — 4 Roll — 5 Roll
STEEL and Granite Rolls.

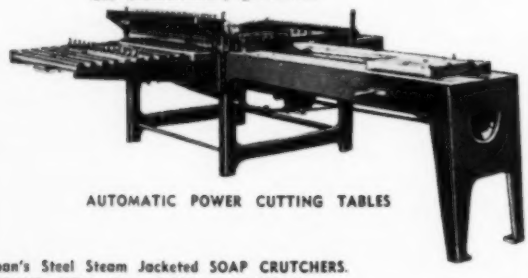


JONES Horizontal Type AUTOMATIC combination laundry and toilet soap presses. Single or Double Kick.



JONES Vertical type
AUTOMATIC Toilet Soap Presses.

Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



AUTOMATIC POWER CUTTING TABLES

Newman's Steel Steam Jacketed SOAP CRUTCHERS. BRAND NEW. Sizes 1,000 to 10,000 lbs.

Call, Write or Wire for Additional Information

NEWMAN
TALLOW and SOAP MACHINERY Company
1051-59 W. 35th Street
CHICAGO 9, ILLINOIS
YArds 7-3665

FOSTER D. SNELL INC.
RESEARCH CONSULTANTS
To the Soap and Chemical Industries.
Send for copy of "Surface Activity and Detergency."
Chemists — Engineers
29 W 15 St. New York 11, N.Y. WA 4-8800

STILLWELL AND GLADDING, INC.
ANALYTICAL & CONSULTING CHEMISTS
Over 80 years
SPECIALIZING IN ANALYSIS
of
Rotenone Bearing Materials, Pyrethrum Flowers and Extracts, Soaps, Detergents, Insecticides, Waxes and Chemicals.
130 Cedar Street
New York 6, N. Y.

E. G. THOMSSEN, Ph.D.
•
Consultant on plant lay-out equipment design and product formulation for manufacturers of insecticides, disinfectants, floor waxes, soaps and allied products.
•
The Robert Whitney Hotel
Bradenton, Florida

Chemical Engineers
Contracting • Consulting
Complete Plants and Engineering Services for:
Glycerine — Fats and Oils
Soaps — Hydrogenation
Fatty Acids — Hydrogen
Research, Reports, Investigations
WURSTER & SANGER, INC.
52nd Street and S. Kenwood Avenue
Chicago 15, Illinois

CLASSIFIED

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap & Sanitary Chemicals*, 254 West 31st St., New York 1.

Positions Open

Wanted: Man with broad chemical and soap manufacturing experience for medium-sized long-established Pacific Coast plant for key production position. Will consider man with chemical engineering and production managerial experience other fields. Salary $7500. Give all details, age, and references. Address Box 680, c/o *Soap*.

Sales: Wanted by leading producer perfuming materials assistant to sales manager. Excellent opportunity for man 35-40 who knows business and has had several years sales experience. Must be able to handle sales correspondence. Give record, experience, education, salary, etc., in full confidence. Address Box 681, c/o *Soap*.

Salesman: A basic producer of synthetic detergents offers a splendid opportunity in sales. The man we are looking for should meet the following qualifications: 30-40 years, college education, 5 years' experience in chemical sales, and most of all a knowledge of the synthetic detergent industry—its customers—applications and chemistry. This is more than a sales job—the right person will head up his own sales department and future opportunities for advancement and remuneration are unlimited. Write giving full details of past experience to Box 682, c/o *Soap*.

Positions Open

Chemist: Wanted by mid-west manufacturer of floor waxes, cleaners, disinfectants, and allied sanitation chemicals. Man capable of taking charge of plant with experience in this work. Degree in chemistry. Good job here with a future for the right man. Please give full particulars, experience, salary, etc. Address Box 683, c/o *Soap*.

Chemist: Small, progressive company has opening for experienced man to take charge formulation and production automotive and sanitary chemical products. Address Lavery & Sanders, 1400 North Front St., Phila. 22, Pa.

Technical Director: Experienced in the development of soaps, waxes, chemical specialties, and alkali blending as technical director for one of the most progressive firms in the country. Location in South. Give details, age and references. Excellent opportunity for capable man. Address Box 684, c/o *Soap*.

Interested in Chemical Specialties? See page 178 for more complete details.

Situations Wanted

Soapmaker & Chemist: Competent. Having long experience in making of all kinds of soaps and cleaning compounds. Experienced chemist and glycerine recovery. Can take full charge of production. Address Box 685, c/o *Soap*.

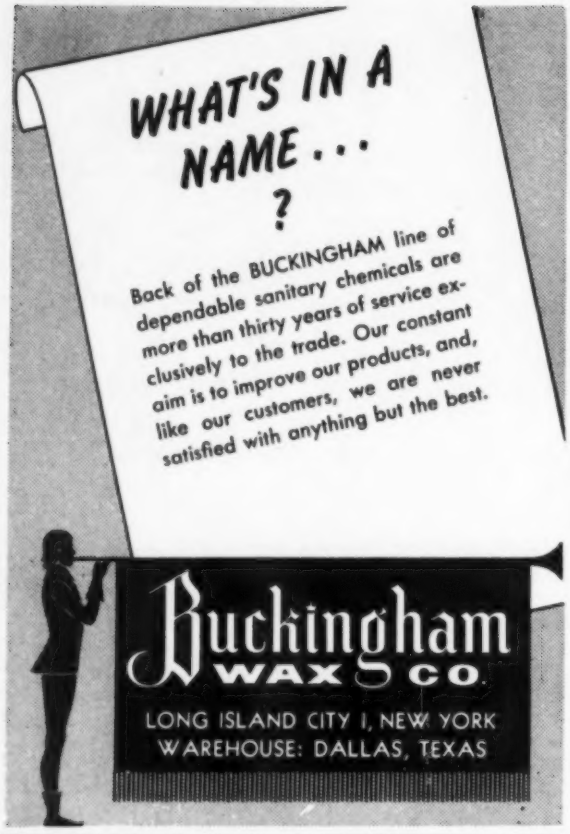
Sales Representation: Chemical engineer with six years of practical chemical products sales experience will act as sales representative on Pacific Coast for two non-competing manufacturers of chemicals or allied materials. Finest references, excellent sales record. For further information write to Box 686, c/o *Soap*.

Chemical Specialties: Desiring opportunity in chemical specialty field. Successful record in setting up merchandising programs, market research, pricing, sales promotion and advertising media. Several years experience in sales and technical service. College graduate. Age 33. Address Box 687, c/o *Soap*.

Right Hand Man: To back up ambitious sales organization. Fifteen years experience in sanitary supplies, both college training and extensive practical experience in chemistry, business administration, production, and sales promotion. Wants opportunity to grow by making company first. Address Box 688, c/o *Soap*.

Production Chemist: Assistant plant manager, cleaning compounds, sanitary chemicals, foods, oil products, similar. Production and personnel supervision; laboratory control, management, safety. Age 38, married, veteran. American Institute of Chemists, American Oil Chemists Society. Salary $5800. Address Box 689, c/o *Soap*.

Reprints Synthetic Detergents Up-To-Date II available from Mr. J. W. McCutcheon, 475 Fifth Ave., N.Y.C.


WHAT'S IN A NAME . . . ?
Back of the BUCKINGHAM line of dependable sanitary chemicals are more than thirty years of service exclusively to the trade. Our constant aim is to improve our products, and, like our customers, we are never satisfied with anything but the best.
Buckingham
WAX CO.
LONG ISLAND CITY 1, NEW YORK
WAREHOUSE: DALLAS, TEXAS

CERTIFIED COLORS

A broad range of shades for Shampoos, Soaps, Drugs, Medicines, Creams, Rinses, and Cosmetics.

PYLA-SYNTH COLORS

Fast colors for the New Synthetic Detergents in Red, Blue, Green, Amber and Yellow.

- *We offer a full line of fast colors for all soap and soap products.*
- **Send for free samples.**
  Send for price lists.

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters

799 Greenwich St. New York City 14

Cable Address "Pylamco"

CIN-MADE CANS

We make All Fibre Cans, also Cans with Metal Ends for Packaging and supply them either plain or decorated. Your inquiries are welcomed, whether large or small. For years we have made a specialty of cans for chemical and sanitary specialties.

THE CIN-MADE CORPORATION

3rd & Eggleston Avenue

Cincinnati 2, Ohio

Needed? . . .

Is the copy of "MODERN CHEMICAL SPECIALTIES" gone from the library just when you need to refer to it? Your own personal copy of this 500 page book covering manufacture and use of polishes, cleaners, detergents, etc., would solve your dilemma. Why not order you rown copy today? $7.25 postpaid in the U. S.; $7.75 elsewhere.

Send check with order

Add 3% sales tax if in New York City

Soap & Sanitary Chemicals

254 West 31st St., New York 1, N. Y.

Situations Wanted

Chemist or Plant Supt.: Chemist for past 20 yrs. 5 yrs. chief chemist of control and research fats, oils, fatty acids. 3 yrs. as plant chemist same company supervising eleven chemists and 70 plant employees. 6 yrs. chemist for large soap company. 4 yrs. supervising control chemist five laboratories on detergents, carbon removers, paint and varnish removers, acid cleaners, automobile and general cleaner formulations. Write for complete brochure to Box 690, c/o *Soap*.

Chemist: Extensive practical experience in the following formulations: — wax compositions; floor lacquers; waterless hand cleaners; shoe polishes; and automotive cleaners, polishes, and specialties, including silicones. Desires position, preferably in New York metropolitan area. Will consider working on consultant basis. Address Box 691, c/o *Soap*.

Sanitary Supply Sales: Established representative covering Texas & Okla. with headquarters Dallas, calling on janitor and hotel supply trades, will take on line of sanitary supplies of leading manufacturer. Good following. Can produce. This can be a worthwhile connection for progressive manufacturer. Write to Box 694, c/o *Soap*.

Miscellaneous

Wanted: 2500-3000 gallon vertical stainless steel processing kettle, partially steam jacketed. Give complete information including age, condition, dimensions and price. Address Box 692, c/o *Soap*.

Miscellaneous

Wanted: Kettles, frames, pulverizers, cooling rolls, chip dryers, plodders, cutting tables, evaporators, packaging units, automatic soap presses, mixers, stainless steel tanks. Will consider idle or operating plant. P. O. Box 1351, Church St. Sta., New York 8, N. Y.

For Sale

For Sale: Viscolizers and homogenizers. Completely rebuilt and guaranteed, with late type stainless steel sanitary heads and pressure valves. Also machines with standard heads and valves. Send for bulletin and prices. Otto Biefeld Co., Watertown, Wis.

For Sale: Complete soap or sanitary chemical plants. Also individual items such as crutchers, plodders, mills, mixers, presses, dryers, filling equipment, etc. R. Gelb & Sons, Inc., State Highway No. 29, Union, N. J.

For Sale: 1500 & 3000# soap crutchers; wrapper type S; P & S rolls; 3 & 5 roll mills; 10" plodder; Pdr. mixers; Fillers; Dryer: Boilers: other items. I. E. Newman, 5602 Blackstone Ave., Chicago, Ill.

For Sale: 1—Lehmann 12" Plodder; 1—Houchin 14"x36" 5-roll inclined watercooled mill, 30 H.P. motor; 1—Baker 20"x33" 5-roll mill, 55 H.P. motor; 1—Jones A, automatic horizontal soap press; 1—Jones automatic "K" press; 2—Package Machinery Co. model TT and model N soap wrappers; 3—Steel vertical, jacketed soap crutchers, 3000 lb., 2000 lb. and 1000 lb.; 1—6 knife soap chipper, m.d.; 1—4'x8' steel flaking or cooling roll;

For Sale

1—Pneumatic Scale Packaging Line. Filter presses 12" to 42", powder fillers; dry powder mixers, 450 cu. ft., 3000 lb. and smaller sizes; paste and liquid mixers; Rotex screens; Hammer mills; soap frames; Dopp jacketed kettles 100, 350, 600 gallon; Blackmer pumps; tanks; carton gluer-sealers. Ask us to quote on your requirements. Tell us what idle machines or plants you have for sale. Consolidated Products Co., Inc., 15-21 Park Row, New York 38, N. Y. Phone BArclay 7-0600. Inspect our stock at our warehouse, 331-341 Doremus Ave., Newark, N. J.

Are You Posted on SYNTHETIC DETERGENTS and SOAPS & DETERGENTS? See page 22.

For Sale: Proctor & Schwartz 6-Fan automatic soap chip dryer, 2-roll chilling unit, large roll 48" dia. Empire State foot presses. Soap frames. Allbright-Nell 4' x 9' chilling rolls. Blanchard #14 soap powder mill. Lehmann 4-roll W. C. 12" x 36" steel mill Houchin 8½" x 16" 3-roll and 18" x 30" 4-roll Granite Stone Mills. Kettles and tanks, iron, copper, aluminum and stainless. Dryers vac. & atmos. Jones automatic soap presses. Slabbers and cutting tables, hand & power. Crutchers. Six-knife chipper. Filter presses 12" x 42". Wrapping & sealing machines. Powder, paste & liquid mixers. Rotex sifters. Filling machines, Grinders, Hammer mills. Colloid mills. Three-roll steel mills 8" x 22" to 16" x 40". Portable elec. agitators, pumps, etc. Send for bulletin. We buy your surplus equipment. Stein Equipment Company, 107—8th St., Brooklyn 15, N. Y. STerling 8-1944.

MODERN REBUILT MACHINERY
At Great Savings

UNION Rebuilt Machinery
Established 1912

Pneumatic Scale Cartoning Line Consisting of Bottom Sealer, Top Sealer and Wax Liners. Both 30 and 60 per minute.
International Stainless Steel automatic Vacuum Filler, 160 per minute.
Resina Model LC automatic Capper.
Burt Adjustable Wraparound Labelers.
Mikro 4TH, 3TH, 2TH, 1SH and Bantam Pulverizers.
Lee Stainless Steel Jacketed Kettles, with/without agitators.
Stokes, Baker Perkins BB and Readco, Day, Hottman Mixers.

IMMEDIATE DELIVERIES

Write or Wire Us Collect All Your Requirements

All Equipment Rebuilt and Guaranteed

B.P. Jumbo-type 3500 gal. Steam Jacketed, Double Arm Mixers.
R.A. Jones Model E automatic Soap Press.
Day and Robinson 800, 1000, 2000 lbs. Powder Mixers.
Allis Chalmers Low-Head and Great Western Sifters.
National and Lehman 3 and 5 Roll Mills; steel-granite-porcelain.
Stokes & Smith G1, G2, G6, HG88 Powder Fillers.
Filler 4-Head Stainless Steel automatic Piston Fillers.
Pony ML and M Labelrites; Ermold and World Labelers.
Standard Knapp 429 Carton Sealer; Jones, Ceco Carton Sealers.
Hudson Sharp Campbell automatic cellophane Wrapper.
Package Machinery FA, FA4; Scandia, Hayssen Wrappers.

UNION STANDARD EQUIPMENT CO.
318-322 LAFAYETTE STREET NEW YORK, N. Y.

CLEAN - UP EXTRA PROFITS

SELL THE FAMOUS

Contains Lanolin

E-Z-GO *Di-Phase*

HAND CLEANER

USE With or Without Water

Instantly removes hand soil caused by grime, grease, paint, asphaltum, carbon, shellac, putty, oil, sap, printing inks and other soil that is difficult to remove.

Three Types Available

CREAM

ABRASIVE

LIQUID

Private Label Cleaners a Specialty.

AMAZA LABORATORIES, INC.
Box 4114
Cleveland 23, Ohio

Write Today for Full Details

Manufacturers Since 1886

Extra Quality

makes

WAXES SELL BETTER

Extra Quality

is found in

AMMONIA SOLUBLE RESINS

manufactured by

T.F. WASHBURN COMPANY
2244 Elston Ave.
Chicago 14, Illinois

THE EYE BUYS

LEEBEN COLORS WILL INCREASE YOUR SALES OF

Soaps	Floor Products
Detergents	Polishes
Shampoos	Sweeping Compounds
Bath Salts	and other
Toilet Preparations	Chemical Specialties
Deodorizing Blocks	

Oil, water and alcohol soluble colors. Samples Matched

Also try **SAPONINE** *— the perfect foam producer*

LEEBEN CHEMICAL CO., INC.
INTERSTATE COLOR DIV.
389 Washington St. New York 13, N. Y.
WAlker 5-0210 — 0211

BETTER CLEANERS WHEN YOU USE...

"LIPARI" ITALIAN PUMICE

CHARLES B. **CHRYSTAL** CO., INC.
55 PARK PLACE, NEW YORK 7, N.Y.
PLANT-WAREHOUSE: JERSEY CITY

For Sale

Liquidating: Chemical manufacturing plant. Horizontal powder mixers; steel mixing and processing tanks; 20 bbl. crutcher; 500 gal. Pfaudler jacketed kettle; lot of steel storage tanks various sizes; scales, bucket elevators, screw conveyors, grinders, pumps, motors, etc. Inspection at plant at 6th St. & Bushkill Drive, Easton, Pa. Perry Equipment Corp., 1410 N. 6th St., Phila., 22, Pa.

All subscriptions to SOAP & SANITARY CHEMICALS entered or renewed at this time include a copy of the 1953 SOAP BLUE BOOK & Catalog, the 280 page buyers' guide, out March 15. Yearly subscription, U. S. $4.00; Canadian & Pan American, $5.00; all others $6.00.

For Sale: Reprints of "Synthetic Detergents Up-to-Date" II (Newest Revision) now available . . . 44 pages listing over 1000 detergent products by trade name, manufacturer, class, type, formula and uses—price $1.50. Remittances must accompany order. Available direct from author. John W. McCutcheon, 475 Fifth Avenue, New York 17. N. Y.

Standard Reference Books:
See page 22

Mass. Rodent Control Bill

A rodent control bill, No. 1248 was introduced recently in the Massachusetts House of Representatives by Rep. Charles L. Patone and referred to the State Administration Committee.

The bill specifies that no one may perform insect or rodent control services unless he is a licensed operator. Section 190D of the bill states that: "This section shall not apply to the use of insecticides or rodenticides by an individual in his home, or in his place of business, unless food is stored, prepared, served or kept for sale therein; but in no event shall lethal gas for fumigation be used without a license under this section, except in agricultural or horticultural pursuits, or both."

The Chemical Specialties Manufacturers Assn. is protesting the bill and was to be represented at a hearing on Feb. 16. It suggests the following alternate for section 190D: "This section shall not apply to the use of insecticides or rodenticides by an individual in his home or in his place of business; but in no event shall lethal gas for fumigation be used without a license under this section, except in agricultural or horticultural pursuits, or both."

An annual license fee of $10 is required under the bill. All applicants for such a license must pass a qualification test before a board of examiners.

Insect. Act Change

A bill to amend the Federal Insecticide, Fungicide and Rodenticide Act by changing the ingredient statement and calling for "a more adequate statement of ingredients in certain insecticides" was introduced in the House of Representatives recently by Rep. Frank Smith of Mississippi. The bill, H.R. 620, was referred to the Committee on Agriculture. The proposed change in section 2 of the Act would be amended to read as follows: "The term ingredient statement means the name and percentage of each active ingredient, together with the name of each inert ingredient and the total percentage of the inert ingredients, in the economic poison; and, in addition, in case the economic poison contains arsenic in any form, a statement of the percentages of total and water soluble arsenic, each calculated as elemental arsenic."

The purpose of the bill according to Representative Smith is to discourage marketing of low quality insecticides. The present section in the Act requires the naming of the inert ingredients only in cases where the economic poison is highly toxic to man.

New Delaney Bills

Two bills growing out of the Delaney Committee's investigation were introduced in Congress recently by Rep. James J. Delaney of New York, chairman of the committee which bore his name. HR-2244, designed to amend the Federal Food, Drug and Cosmetic Act along the lines recommended in the report of the Delaney Committee calls for the elimination of the exemption of soap under provision of the Act. The other Delaney bill, HR-2245, is designed to control the use of "chemical additives" in foods. Insecticides are regarded as additives under the bill, since it states that additives are substances which are intended for use in a food to preserve or alter any food, or as a pesticide or for any other purpose in wrapping, packing, transporting, wrapping or holding food if such use is likely to result in contamination.

Iowa Soap Bankrupt

Iowa Soap Co., Burlington, Ia., filed a voluntary petition for reorganization Jan. 15 at the U. S. District Court, Des Moines, under Chapter X of the Banking Law. The company was reported to have assets of $460,000 and liabilities of $965,843. James T. Boland, president, and Carl J. Leopold, a prominent Iowa furniture dealer, were appointed trustees. They have until Mar. 15 to file a plan for reorganization.

Among the assets listed were $68,000 cash, $52,000 accounts receivable, $180,000 inventory, $15,000 packaging materials, $58,000 royalty assets, $16,000 investment assets and $65,000 cash value of life insurance policies. Liabilities included $600,000 in debenture bonds, $200,000 in notes to banks, $58,000 contingent liabilities, $20,000 merchandise credits and $2,000 in taxes.

EQ-53 Formula Change

A change in the formula of mothproofer "EQ-53" calling for a reduction of from 30 to 25 percent DDT was announced late last month by the U. S. Department of Agriculture.

Letters . . .

(*From Page 41*)

repeat here. In that letter, Mr. Gillam fancied himself as the "target of the soap monopoly" and criticized us for tabbing as irresponsible a previous statement by him that "the three major soap companies are advertising the independents out of business."

Our comment on Mr. Gillam's long letter of August, 1950, was as follows: "Although we do not feel that Mr. Gillam's letter is worth the space which it occupies, to obviate the inevitable complaint by him that we have refused to give him a hearing or an opportunity to answer our criti-

cism, we publish the letter in full exactly as he wrote it. Our reaction to this letter is the same as that to his testimony before the Gillette Committee, that the statements mostly are irresponsible and without foundation in fact."

As a further comment on Mr. Gillam's latest letter, we quote from the letter of another small soaper which appeared in the January, 1952, issue of SOAP & SANITARY CHEMICALS. *It was written by Herbert Kranich, president of the Kranich Soap Co., Brooklyn. "Reading your pages about the plight of the small soaper, I occasionally sit back and question if things really are as bad as you picture them. Through the years, I have met many small and medium-size soapers of all kinds. I have yet to observe one of them on the verge of starvation or with the seat out of his pants. All appear well fed, well dressed, and with a buck to two handy when needed. This makes me suspicious. Could it be that most of them each has a little gold mine hidden away in that old factory about which they prefer that others know nothing? Could be.*

"Now today, the soap business is a little flat as we all know. Does this call for all the squawks about the poor little soapers? Poor little soapers, my eye! In the past twenty years, their capital and plant investment have grown ten times. Bankruptcies among them in ten years could be counted on the fingers of one hand. They drive Cadillacs. . . . Maybe the squawks are just cries of "wolf" to throw us off the track. . . . Now that business is not so hot, some of them may have hopes that Uncle Sam will step forward with a blanket to protect us from all our ills.

"Show me just one starving small soaper. When you find him, I may be impressed by this flood of tears and self compassion. In the meantime, forgive my chuckles. Anybody knows that the tide just can run in forever."

We are still waiting for a small soaper, recently put out of business or about to be put out of business by the "monopoly" to step forward and be identified.—Ed.

Index to ADVERTISERS

Allied Block Chemical Co..... 166
Amaza Laboratories, Inc..... 180
American Lignite Products Co..... 183
American Standard Mfg. Co..... 164
Andersen, Carl N..... 175
Antara Chemicals Div., General Dyestuff Corp. 78
Armour & Co..... 85
Aromatic Products, Inc..... 17
Atlas Powder Co..... 31

Baird & McGuire, Inc..... 132
Bareco Oil Co..... 164
Bersworth Chemical Co..... 104
Blockson Chemical Co..... 15
Breuer Electric Mfg. Co..... 11
Buckingham Wax Co..... 178

California Spray-Chemical Co..... 122
Candy & Co..... 4
Chemical Service of Baltimore..... 35
Chemical Specialties Manufacturers Association 111
Chrystal Co., Charles B..... 180
Cin-Made Corp. 178
Cowles Chemical Co..... 60
Cox, Alvin J..... 175
Crown Can Co..... 151

Davies-Young Soap Co..... 66
Diehl & Co., William 172
Dill Manufacturing Co..... 121
Dodge & Olcott, Inc..... 114
Dow Chemical Co..... 20
Dreyer Inc., P. R..... 6
duPont de Nemours & Co., E. I. Facing 19, 37, 59
Durez Plastics & Chemicals, Inc... 118

Emery Industries, Inc..... 89
Ertel Engineering 168

Federal Varnish Div..... 127
Felton Chemical Co..... 123
Filtrol Corp. 72
Florasynth Laboratories, Inc..... 56
Fritzsche Brothers, Inc. 68
Fuld Brothers, Inc..... 3

Gair Co., Robert..... 108
Geigy Co. 128
Gesell Inc., R..... 172
Gillespie-Rogers-Pyatt Co. 150
Givaudan-Delawanna, Inc. 152
Gross & Co., A..... 58

Hardesty Co., W. C..... 82
Hercules Powder Co.....38, 131
Hinde & Dauch Co..... 182
Hochstadter Laboratories, Inc..... 175
Hollingshead Corp., R. M..... 30
Hooker Electrochemical Co..... 64
Houchin Machinery Co..... 90
Hudson Laboratories, Inc..... 175
Hysan Products Co..... 7

International Minerals & Chemical Corp. 34

Jefferson Chemical Co..... 96

Kleenaire Kemikels 170
Koppers Co. 106
Kranich Soap Co..... 8, 9
Kroner Laboratories 175
Kurly-Kate Corp. 174
Lancaster, Allwine & Rommell.... 175

Lee, Alan Porter..... 175
Leeben Chemical Co..... 180
Lehmann Co., J. M..... 92
Lueders & Co., Geo..... 80

Magnus, Mabee & Reynard, Inc.... 143
Mantrose Corp. 116
Maryland Glass Co.....Facing 18
McCutcheon, J. W.....170, 175
McDonnell, C. C..... 175
McLaughlin Gormley King Co..... 112
Molnar Laboratories 175
Monsanto Chemical Co.....12, 13, 113
Moore Brothers Co..... 100

National Aniline Division..... 21
National Sanitary Supply Association 26
Naugatuck Chemicals Div..... 25
Neumann, Buslee & Wolfe, Inc..... 172
Newman Tallow & Soap Machinery Co. 176
Newport Industries, Inc..... 106
Niagara Alkali Co..... 33
Ninol Laboratories 24
Norda Essential Oil & Chemical Co. 83
Noville Essential Oil Co..... 160

O'Donnell, James P..... 175
Oil Equipment Laboratories, Inc... 154
Onyx Oil & Chemical Co..... 14
Orbis Products Corp..... 146
Oronite Chemical Co..... 16
Ottawa Chemical Co..... 102
Owens-Illinois Glass Co..... 57

Packwood Mfg. Co., G. H..... 10
Peck's Products Co..... 27
Penick Co., S. B..... 125
Pennotex Oil Corp..... 166
Pennsylvania Refining Co..... 160
Per-Mo Products Co. 174
Perry Brothers, Inc..... 162
Petrolite Corp. 142
Philadelphia Quartz Co..... 18
Polak & Schwarz, Inc..... 84
Polak's Frutal Works 61
Poulsen & Co., A. E..... 94
Precision Valve Corp..... 144
Prentiss Drug & Chemical Co..... 156
Proctor & Schwartz, Inc..... 100
Puro Co., The..... 19
Pylam Products Co..... 178

Rohm & Haas Co..... 126
Roure-Dupont, Inc. 74

Seil, Putt & Rusby, Inc.....172, 175
Shawmut Specialty Co..... 120
Shell Chemical Co. 28
Snell Inc., Foster D. 158, 177
Solvay Process Div., Allied Chemical & Dye Corp....2nd Cover, 29
Sonneborn Sons, Inc., L..... 108
Stepan Chemical Co..... 88
Stern Can Co..... 158
Sterwin Chemical Co..... 124
Stillwell & Gladding, Inc..... 177
Superior Rubber Co..... 174

Tamms Industries Inc..... 168
Thomssen, E. G..... 177
Tombarel Products Co..... 102
Triangle Package Machinery Co... 98
Trio Chemical Works..... 162
Turner & Co., Joseph..... 62

Ultra Chemical Works..... 23
Uncle Sam Chemical Co..... 156
Ungerer & Co.....3rd Cover
Union Standard Equipment Co..... 179
U. S. Bottlers Machinery Co..... 104
U. S. Industrial Chemicals, Inc..... 117

Van Ameringen-Haebler, Inc.....32, 119
Varley & Sons, James.....4th Cover
Verona Chemical Co..... 86

Warwick Chemical Co..... 87
Warwick Wax Co..... 129
Washburn Co., T. F.....115, 180
Welch, Holme & Clark Co. 70
Westvaco Chemical Divisicn..... 76
Wurster & Sanger, Inc..... 177

Zinsser & Co., William..... 130

AMERICAN MONTAN WAX

Now ——— CALIFORNIA PRODUCED ———

SPECIFY* ALPCO TYPES

- All inquiries welcome.
- Refined types being developed in pilot plant — samples available.
- Laboratory facilities.

STOCKS AT CONVENIENT POINTS

Produced Only By
AMERICAN LIGNITE PRODUCTS CO.
IONE, CALIF.

* Registration Pending

Tale Ends

THE SOAP clans gathered from all parts of the country last month for the 26th annual conclave of the industry under the auspices of the Soap Association. Over 1,000 strong, the soap, detergent, fatty acid and glycerine boys descended on the Waldorf in N. Y. Very few soapers missed the event. Each soap convention seems to be better than its predecessor. An orchid to Roy Peet, Malcolm Miller, Frank Luther and the Association staff, and to Jim Reilly of Colgate and Mike Roche of Lever for a great job. Also one to Art Schubert of Emery and Scott Pattison of the Association for one of the finest fatty acid programs we have ever heard.

• • •

Contrast in the size variation of the human body,—Walter Straub, Chicago soaper and largest man at the soap convention, was toastmaster at the annual industry banquet Jan. 29. (Walter is about six feet seven inches.) He introduced General Carlos Romulo, Philippine Ambassador to U. S., banquet speaker and smallest man in the gathering,—probably 5'-2". When they stood side by side on the dais, Walter looked something like the giant from Jack and the Beanstalk.

• • •

Lately, the publicity heat has been turned on in behalf of Shasta Cream Shampoo by the P & G Drug Products Div. Miss Jane Carter, lovely RKO film star, who wears the screen title of "Miss Loveliest Legs," was referred to in the Shasta publicity releases as the "gamerous" Miss Carter. Sic: legs—gams—gamerous—glamorous. Maybe a dame's good-looking legs may have some association with a hair shampoo that we ain't heard of yet. That well could be, but that "gamerous" thing, —oh, my gosh! Hold us back, Mabel, we feels that urge to kill coming on again!

• • •

The irate customer came storming into the hardware store waving aloft an empty insecticide aerosol container. To rid a room of flies, he had sprayed,—or rather had attempted to spray the place for ten minutes. "The directions say to spray a room for ten minutes and the damned thing won't go for ten minutes. It's a fraud and I want my money back." Midst the screams and demands of the customer, the dealer carefully examined the fine print on the label. It said: "Spray around the room for ten seconds."

• • •

"Twenty-two years ago I was a demonstrator in house-to-house work for your company. One evening at the close of work, I went home with twenty packages of so-and-so soap chips and never showed up again." Enclosed with this note was a check for six dollars signed by a woman. She went on to say that after twenty years or so her conscience had begun to bother her a trifle and she thought it best to get the matter settled without further ado. This letter was received recently by one of the large soapers.

Big boom in perfumed soap among Chinese Communist cowboys! Says the Comumnist Peiping radio, Chinese cowboys, more exactly termed Mongolian herdsmen who watch the cattle on the Mongolian plains, are going for scented soap in a big way. Well, gentle reader, maybe communism has its advantages for the Mongolian cowboys. The last we heard, they used little or no soap at all. In fact the annual per capita soap consumption of China as a whole when we last heard was only two ounces.

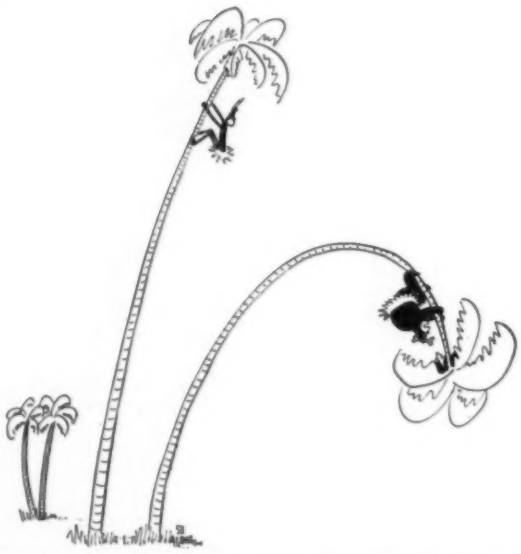
• • •

Imagine the rage of many loyal Republicans who were unable to obtain boxes, and in some cases even seats for the big Eisenhower inaugural shindig in Washington, to note the name of Charles Luckman on the list of box holders. As one newspaper columnist stated: "Mr. Luckman is the former Lever Bros. president who was liquidated by the suds outfit for, among other reasons, (sic) toastmastering Truman-Vaughan-Boyle clambakes." Among other reasons? Could the other reasons be sharply declining profits?

• • •

The native-owned soap industry of India is not doing too well, according to the South India Soap Makers' Assn. They lay their woes to low buying power of the populace, competition from foreign-owned soap plants in India, and to some extent to smuggling of foreign soaps into India. The native industry is demanding government protection against the competition of the foreign-owned plants. T'was ever thus the world over, — trying to cure economic troubles via legislation when scientific advancement is the true solution. We respectfully suggest to Indian soap makers that they cease crying into their beer and start imitating their more successful foreign competitors, — and to be patient, remembering that India's independent soap industry is not yet five years old.

Topheavy?



IS your advertising topheavy with waste circulation? Or is it concentrated in publications which blanket markets that you do and can sell? Avoiding waste circulation can save a lot of advertising dollars. For example, to cover the field of soaps and detergents, floor products, insecticides, aerosols, disinfectants, and other chemical specialties and sanitary supplies, you can cut waste to the bone and reach the maximum concentration of real buyers by regular advertising in

SOAP and Sanitary Chemicals

254 West 31st St., New York 1

USE UNGERER BASIC MATERIALS
FOR PERFUMES AND PERFUME SPECIALTIES

specialists in
odors for fine hand,
scouring, liquid soaps,
soap cleaners and
similar products

Send for your free copy today!

Ungerer & Co.

UNGERER & CO. NEW YORK

161 SIXTH AVENUE
NEW YORK 13

Plant and Laboratories: TOTOWA, N. J.

CHICAGO BOSTON PHILADELPHIA ST. LOUIS LOS ANGELES ATLANTA

HIGH SCHOOL COMPLETELY DESTROYED BY FIRE!

19 DIE IN NURSING HOME FIRE!

In a spectacular fire which de-
stroyed the entire b...
conta...

Prevent this sort of Disaster with

UNDERWRITERS' LABORATORY APPROVED

Aqua-Sheen

NON-INFLAMMABLE DUST MOP TREATMENT --- UL IT'S SAFE!

The use of old-fashioned, inflammable oil-type mop dressing has made many a building a virtual fire-trap. The floors become oil-soaked and present an ever-present fire hazard.

AQUA-SHEEN completely eliminates danger of fire *because Aqua-Sheen will not burn under any conditions!!* AQUA-SHEEN can be stored with *no danger* of fire or explosion!

AQUA-SHEEN — America's newest and finest dust-mop treatment is now available in ready-for-use form — *and don't forget it's Underwriters' Laboratories Approved.*

JAMES VARLEY & SONS INC

James Varley & Sons INC

1200 SWITZER AVE., ST. LOUIS 15, MO.
PORTLAND, OREGON DALLAS, TEXAS

JAMES VARLEY & SONS, INC.
1200 Switzer Avenue, St. Louis 15, Mo.
Please send me a FREE trial 8 oz., bottle of AQUA-SHEEN with prices and complete information.

Name.....
Firm.....
Address.....
City.....State.....